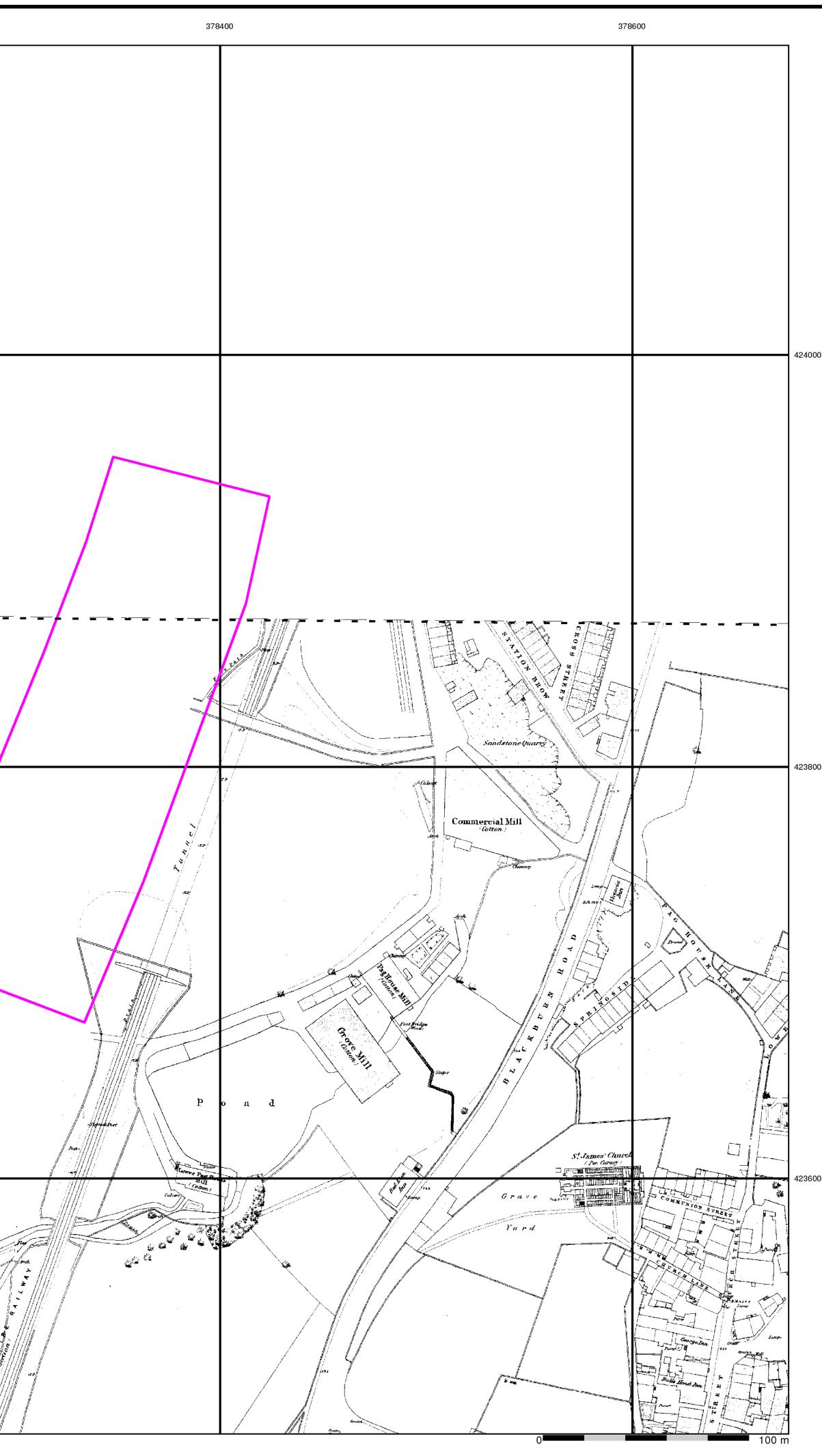
Appendix C – NE3 – Carrs Industrial Estate North Extension, Haslingden – Access Road Preliminary Study (Appendices A to C)

Appendices

A. Site History

		3	78200
424000			
424000		F	
423800			
423600			
	© Crown copyright and Landmark Information Group	D Limited 2020. All Rights Reso	A Com Bridge at





Lancashire And Furness

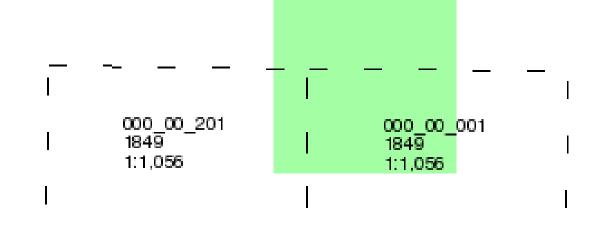
Published 1849

Source map scale - 1:1,056

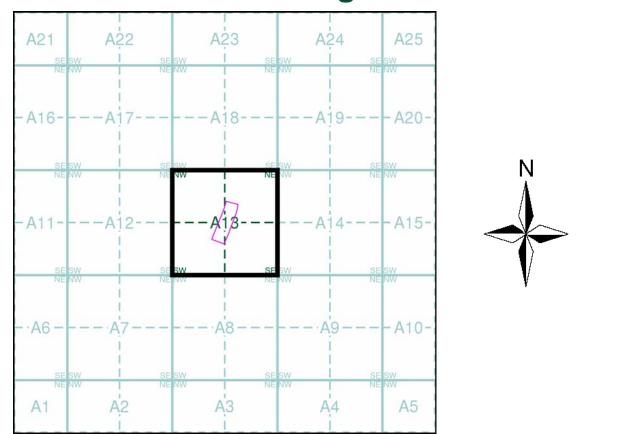
The 1:1056 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the Ordnance Survey and a 'skeleton' survey of the capital, showing little more than streets, street names, frontages and altitudes, was undertaken between 1848 and 1850. The majority of the 1:1056 surveys were later replaced by 1:500 surveys; although almost all the remainder were revised at this scale, sometimes more than once before 1895. The type of detail shown on the 1:1056 scale is broadly similar to that on 1:500; the apparent omission of minor details such as sewer access points and street lights may be as much a reflection of the generally earlier date of these plans, as of the specification of the map.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

Map Name(s) and Date(s)



Historical Town Plan - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	A
Site Area (Ha):	2.26
Search Buffer (m):	0

Site Details

Site at, Rossendale Valley, Lancashire

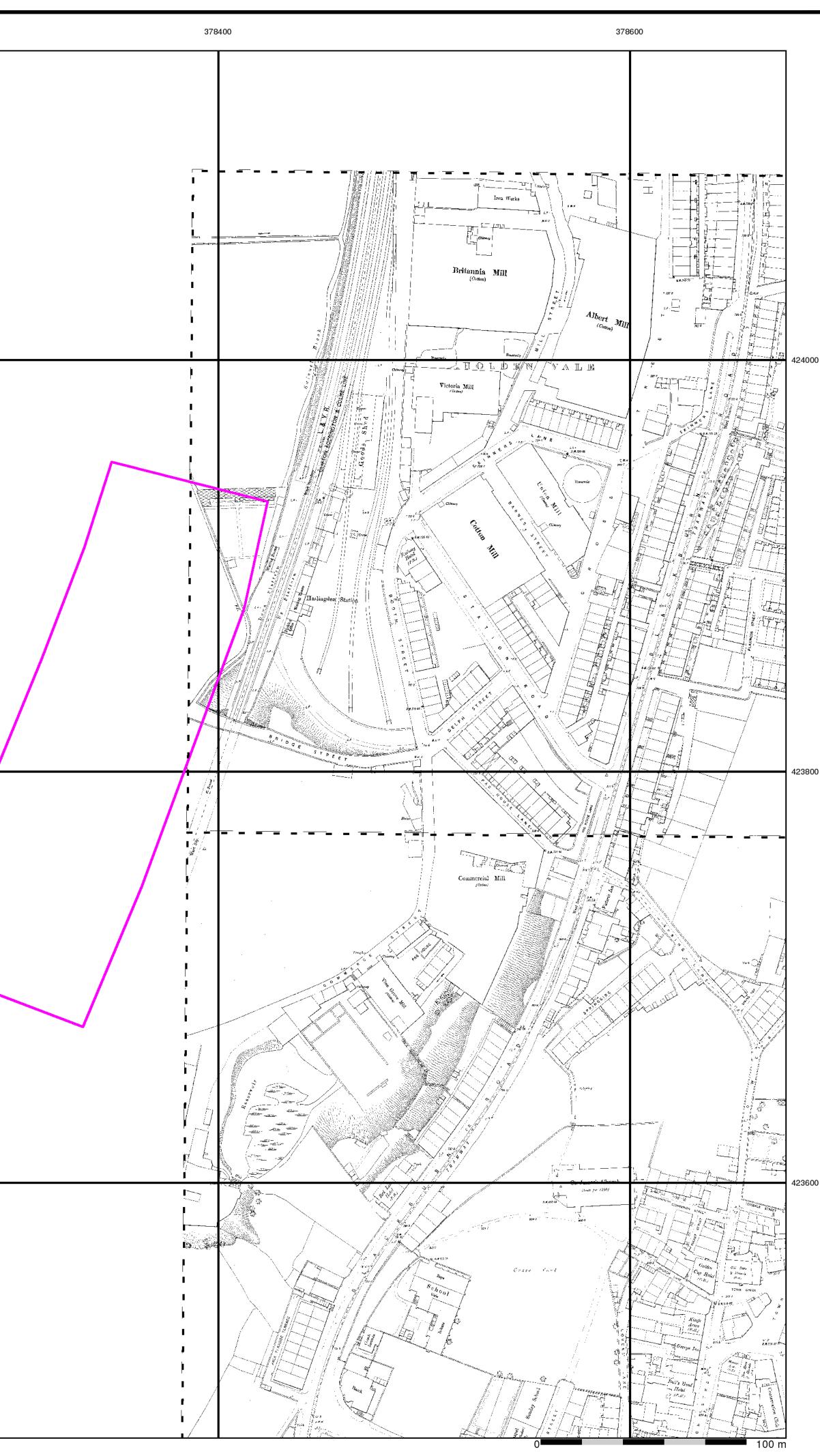


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	378	200
424000		
423800		
423600	© Crown copyright and Landmark Information Group Limited 2020. All Rights Reser	ved.





Lancashire And Furness

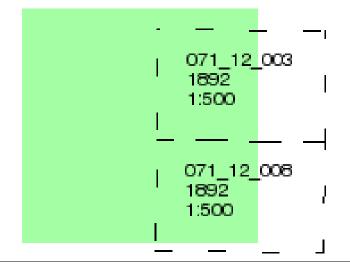
Published 1892

Source map scale - 1:500

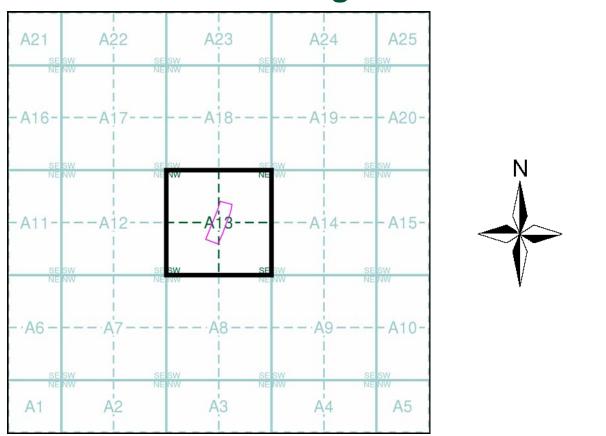
The 1:500 scale Ordnance Survey mapping was introduced in 1855 as a replacement for the 1:528 scale and to compliment the 1:2500 scale that had been implemented in 1853. By 1895, the 1:500 scale covered most towns over a population of about 4000 at the time of survey, although very few towns were mapped more than once at this scale, and none have been since 1910. The 1:500 scale gives particular emphasis to such features as lamp posts, man holes, arched passages and minor building projections. Also often featured are divisions between tenements, interior ground floor layouts of public buildings, and on earlier plans, the functions of the various parts of larger industrial premises are also indicated. Content of the plans does vary however, from one town to the next in terms of, for example, the completeness of railway tracks and the coverage of public buildings.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

Map Name(s) and Date(s)



Historical Town Plan - Segment A13



Order Details

241411014_1_1
391034AA06
378340, 423810
А
2.26
0

Site Details

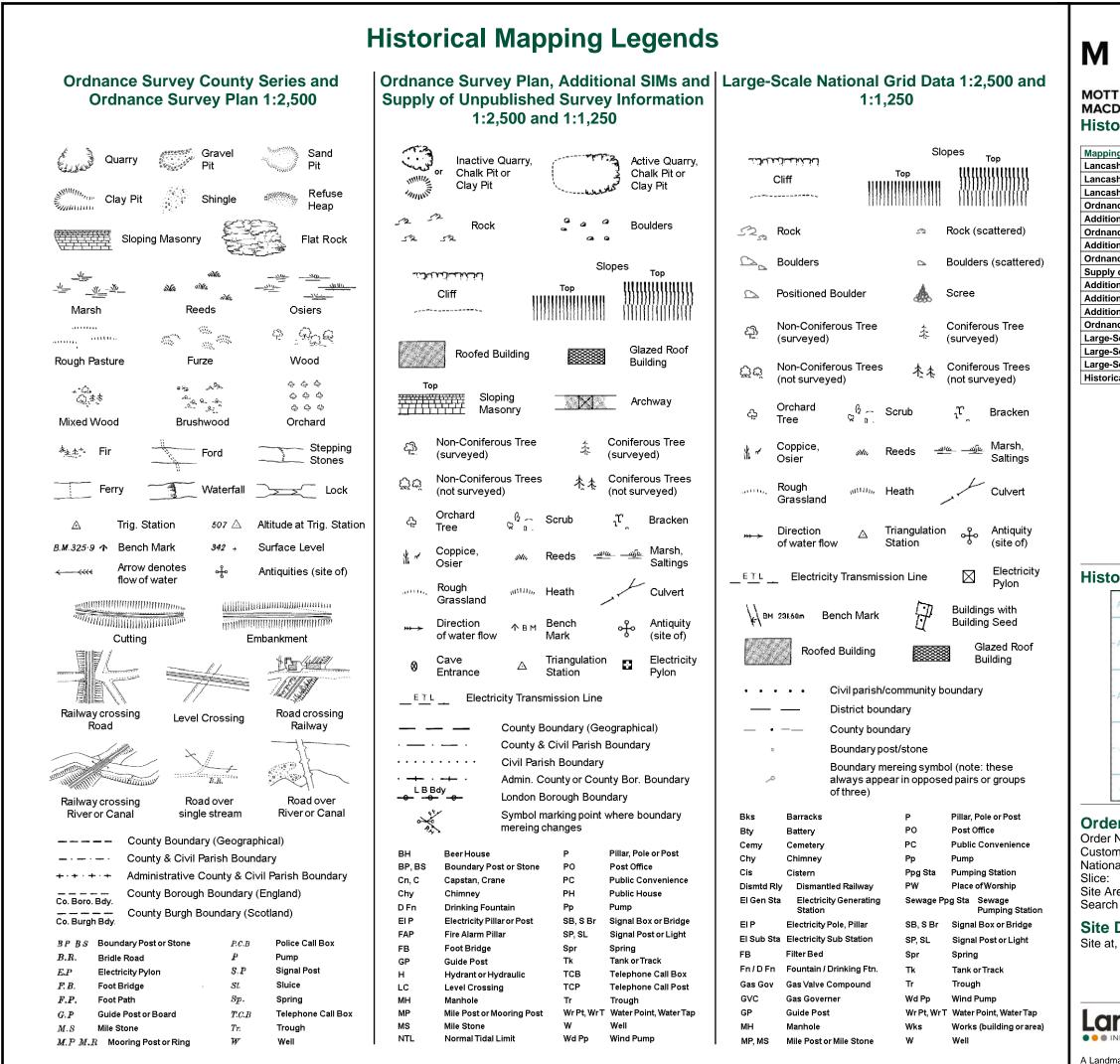
Site at, Rossendale Valley, Lancashire



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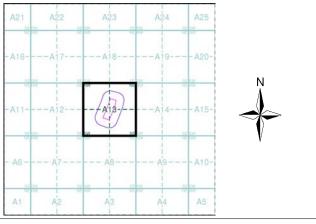


MACDONALD Historical Mapping & Photography included:

Μ

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:2,500	1893	2
Lancashire And Furness	1:2,500	1911	3
Lancashire And Furness	1:2,500	1930	4
Ordnance Survey Plan	1:1,250	1961	5
Additional SIMs	1:1,250	1961 - 1984	6
Ordnance Survey Plan	1:2,500	1963	7
Additional SIMs	1:2,500	1963	8
Ordnance Survey Plan	1:1,250	1971 - 1989	9
Supply of Unpublished Survey Information	1:1,250	1976	10
Additional SIMs	1:1,250	1983 - 1987	11
Additional SIMs	1:1,250	1985 - 1987	12
Additional SIMs	1:2,500	1987	13
Ordnance Survey Plan	1:1,250	1990	14
Large-Scale National Grid Data	1:1,250	1993	15
Large-Scale National Grid Data	1:1,250	1993	16
Large-Scale National Grid Data	1:1,250	1996	17
Historical Aerial Photography	1:2,500	2001	18

Historical Map - Segment A13



Order Details

 Order Number:
 241411014_1_1

 Customer Ref:
 391034AA06

 National Grid Reference:
 378340, 423810

 Slice:
 A

 Site Area (Ha):
 2.26

 Search Buffer (m):
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Site Details

Site at, Rossendale Valley, Lancashire

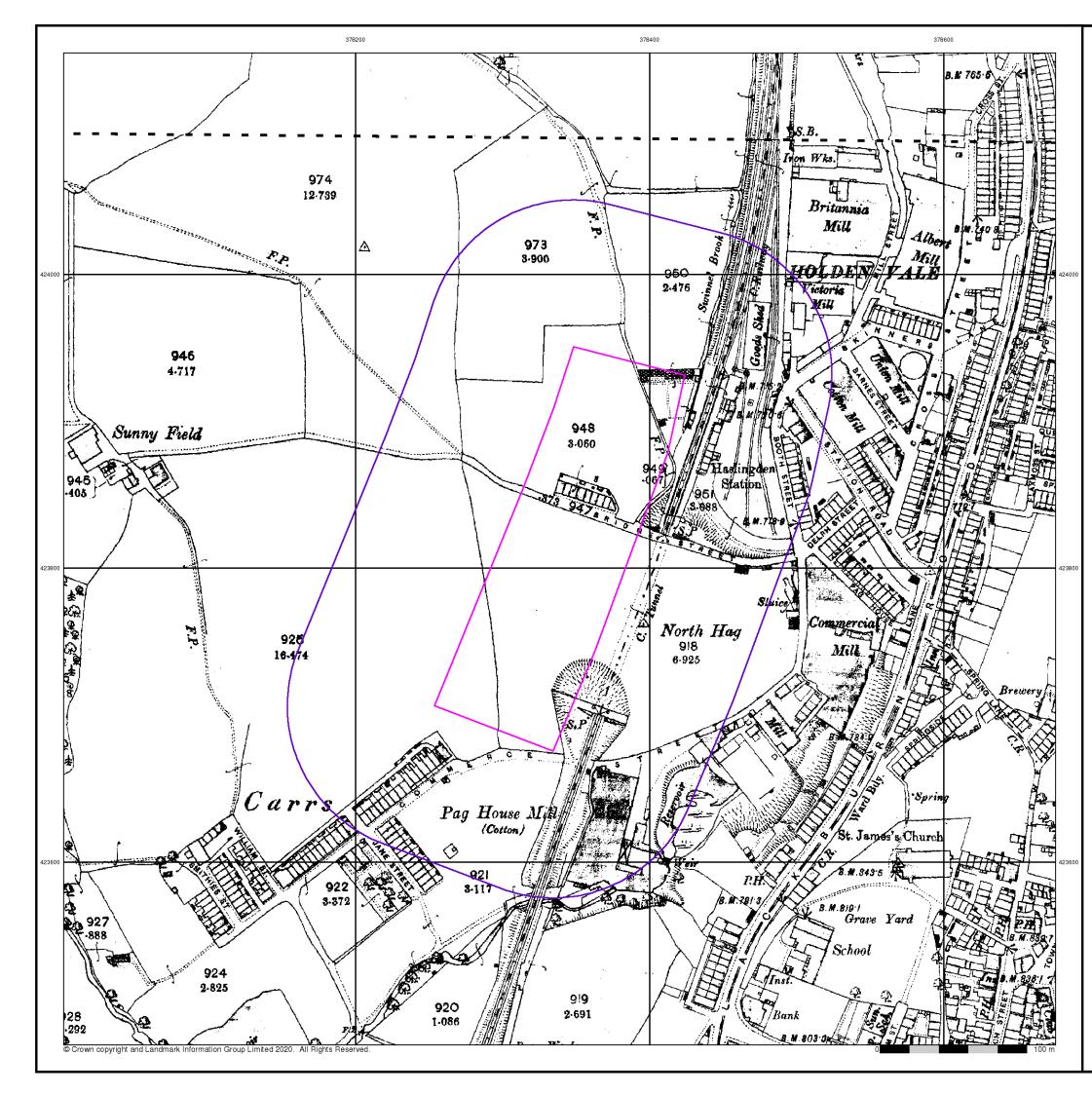


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Tel

Fax:





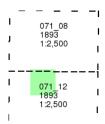
Lancashire And Furness

Published 1893

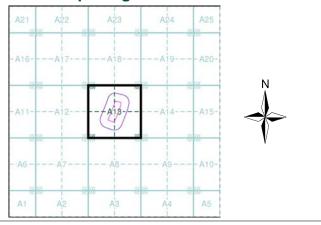
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	Α
Site Area (Ha):	2.26
Search Buffer (m):	100

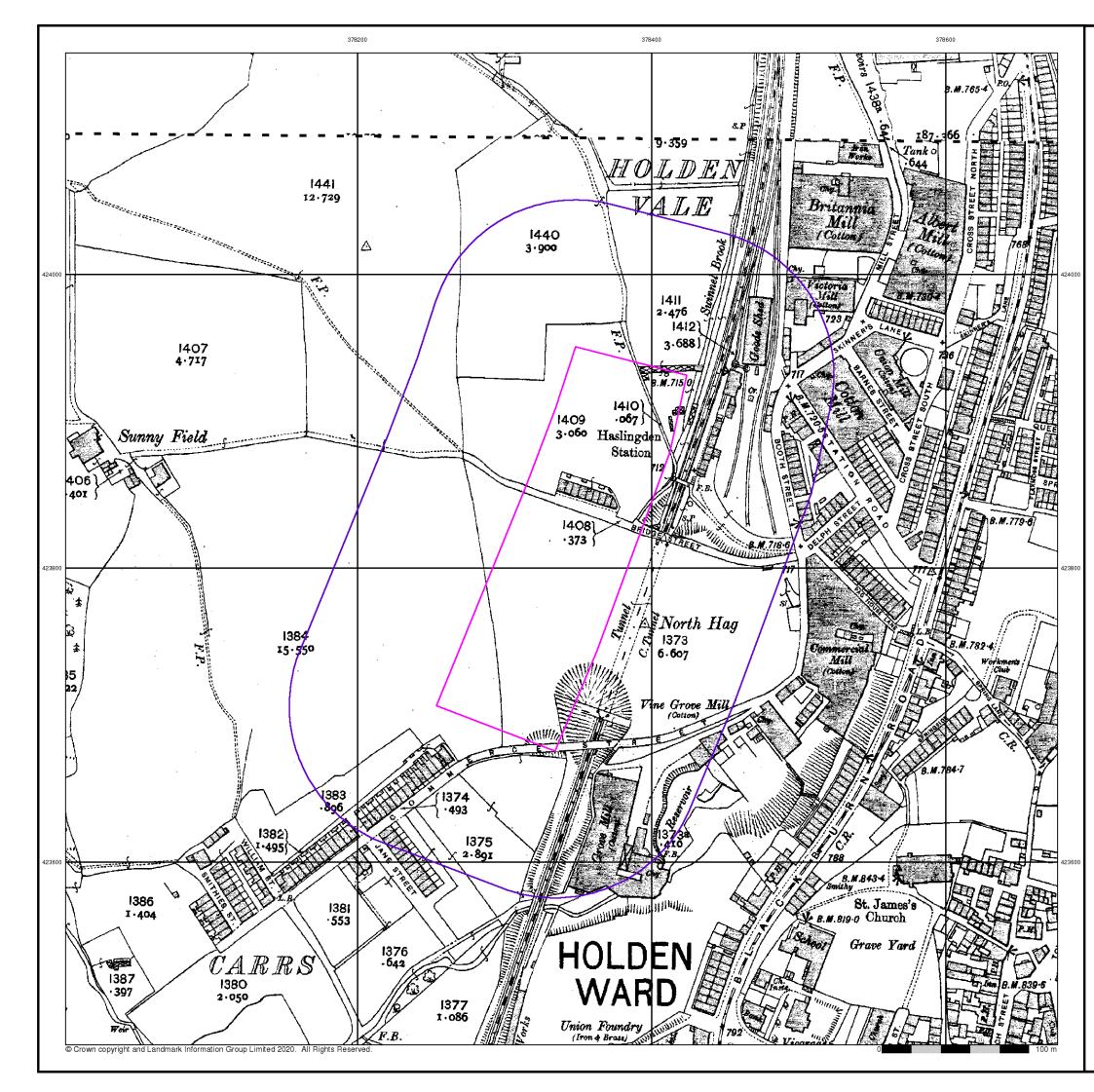
Site Details

Site at, Rossendale Valley, Lancashire



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Tel: Fax:





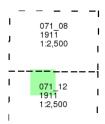
Lancashire And Furness

Published 1911

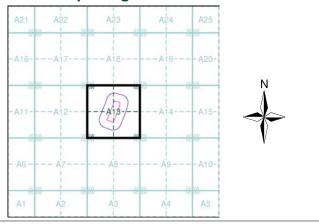
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	A
Site Area (Ha):	2.26
Search Buffer (m):	100

Site Details

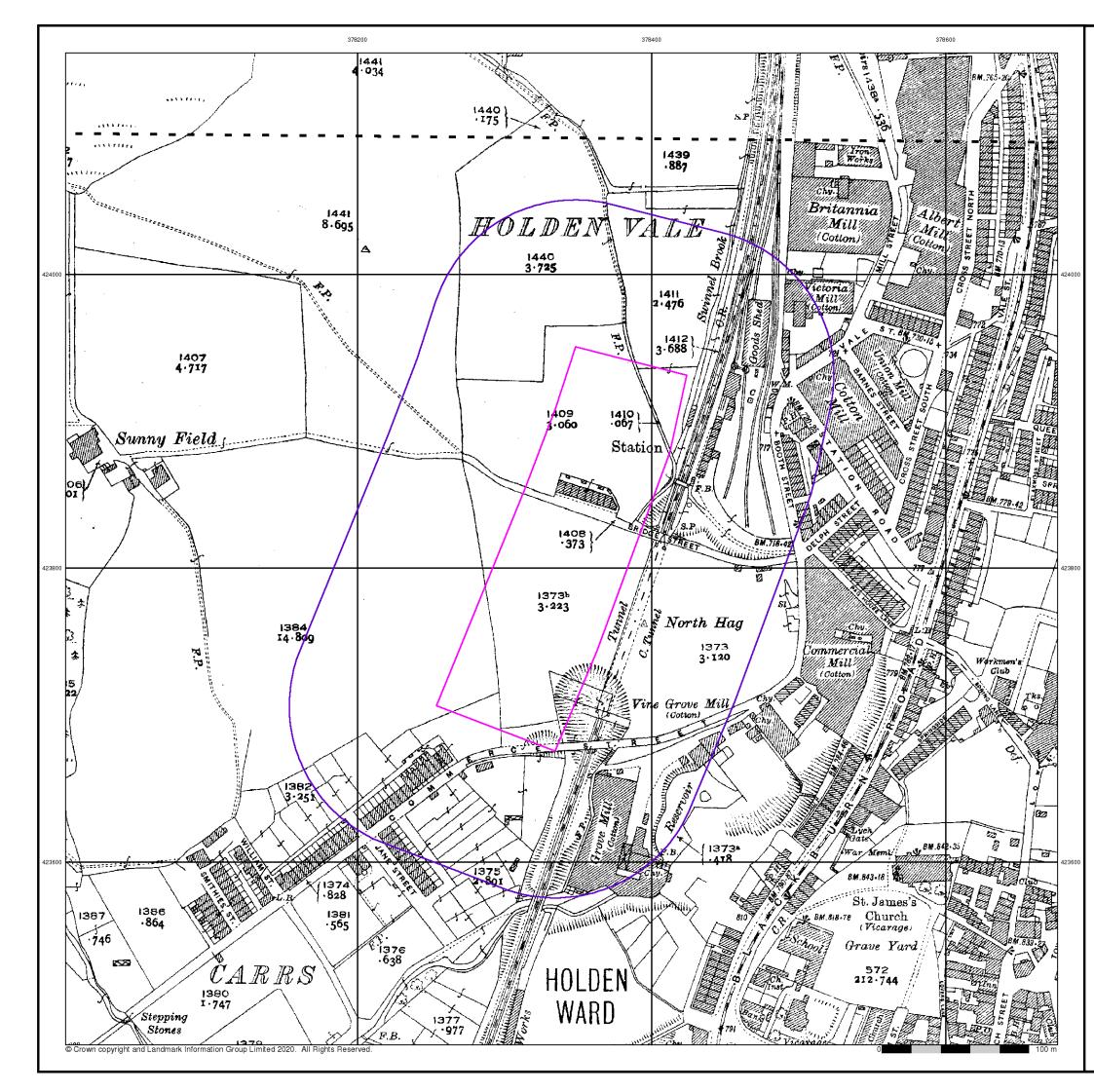
Site at, Rossendale Valley, Lancashire



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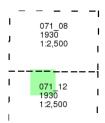
Lancashire And Furness

Published 1930

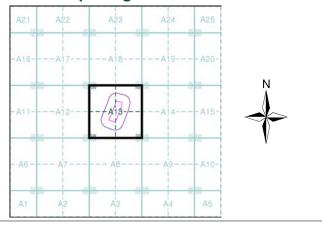
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	A
Site Area (Ha):	2.26
Search Buffer (m):	100

Site Details

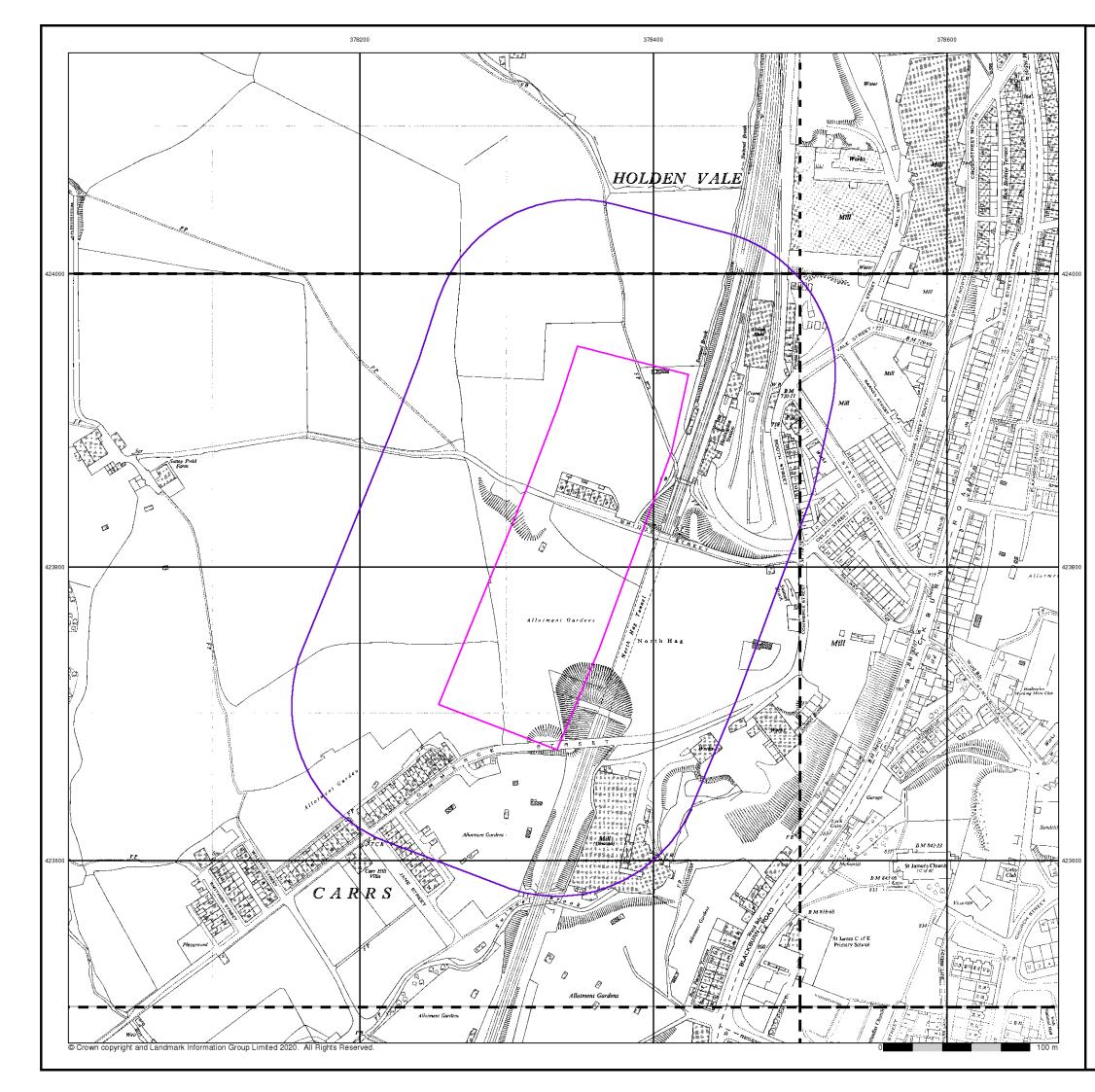
Site at, Rossendale Valley, Lancashire



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Fax:





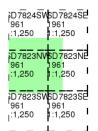
Ordnance Survey Plan

Published 1961

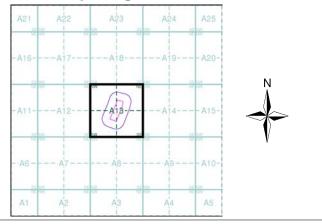
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

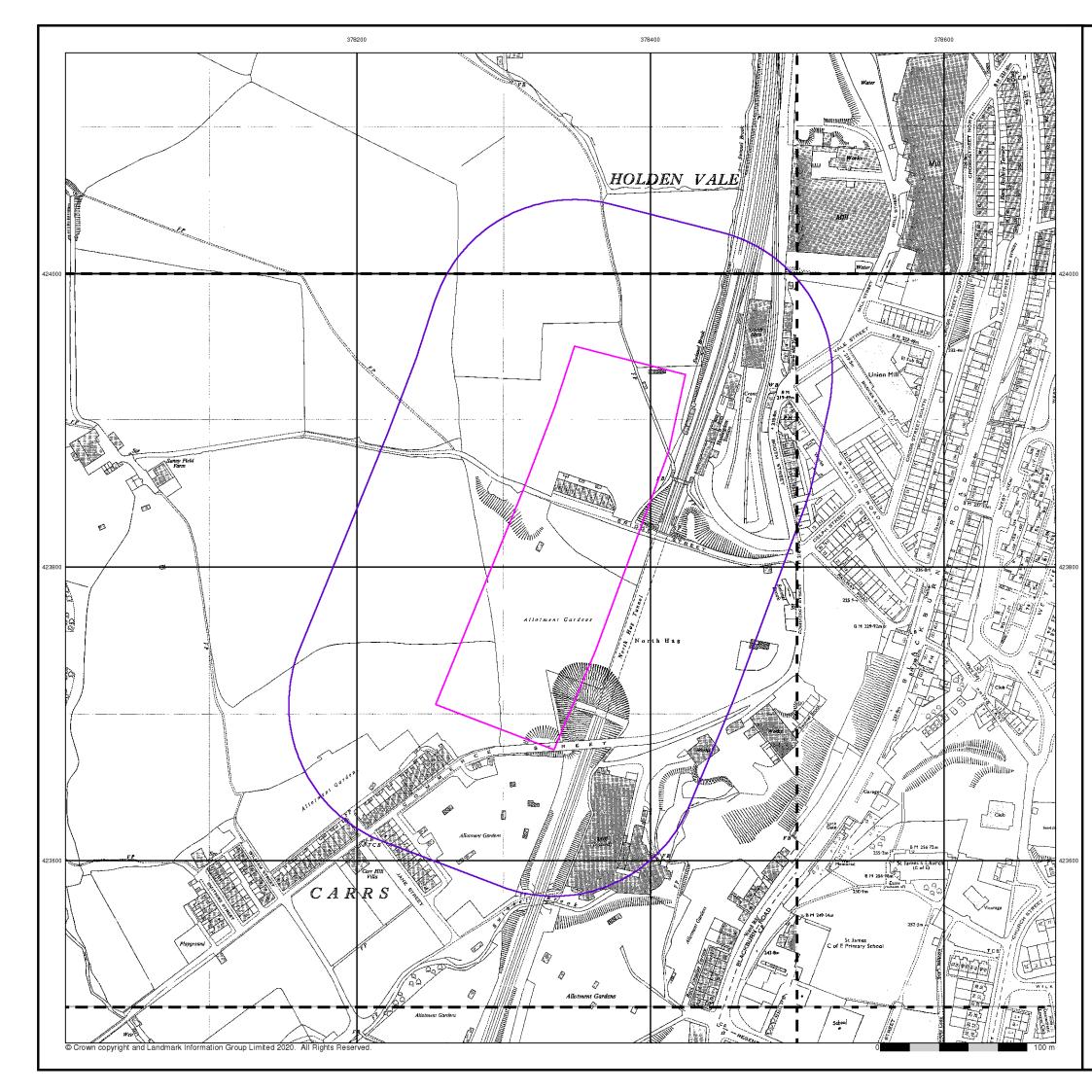
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378340, 423810
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Site Details

Site at, Rossendale Valley, Lancashire



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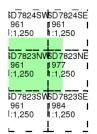
Additional SIMs

Published 1961 - 1984

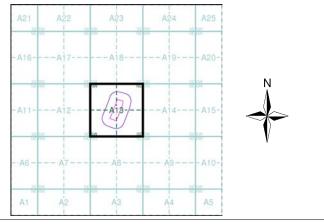
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
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National Grid Reference:	378340, 423810
Slice:	A
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Search Buffer (m):	100

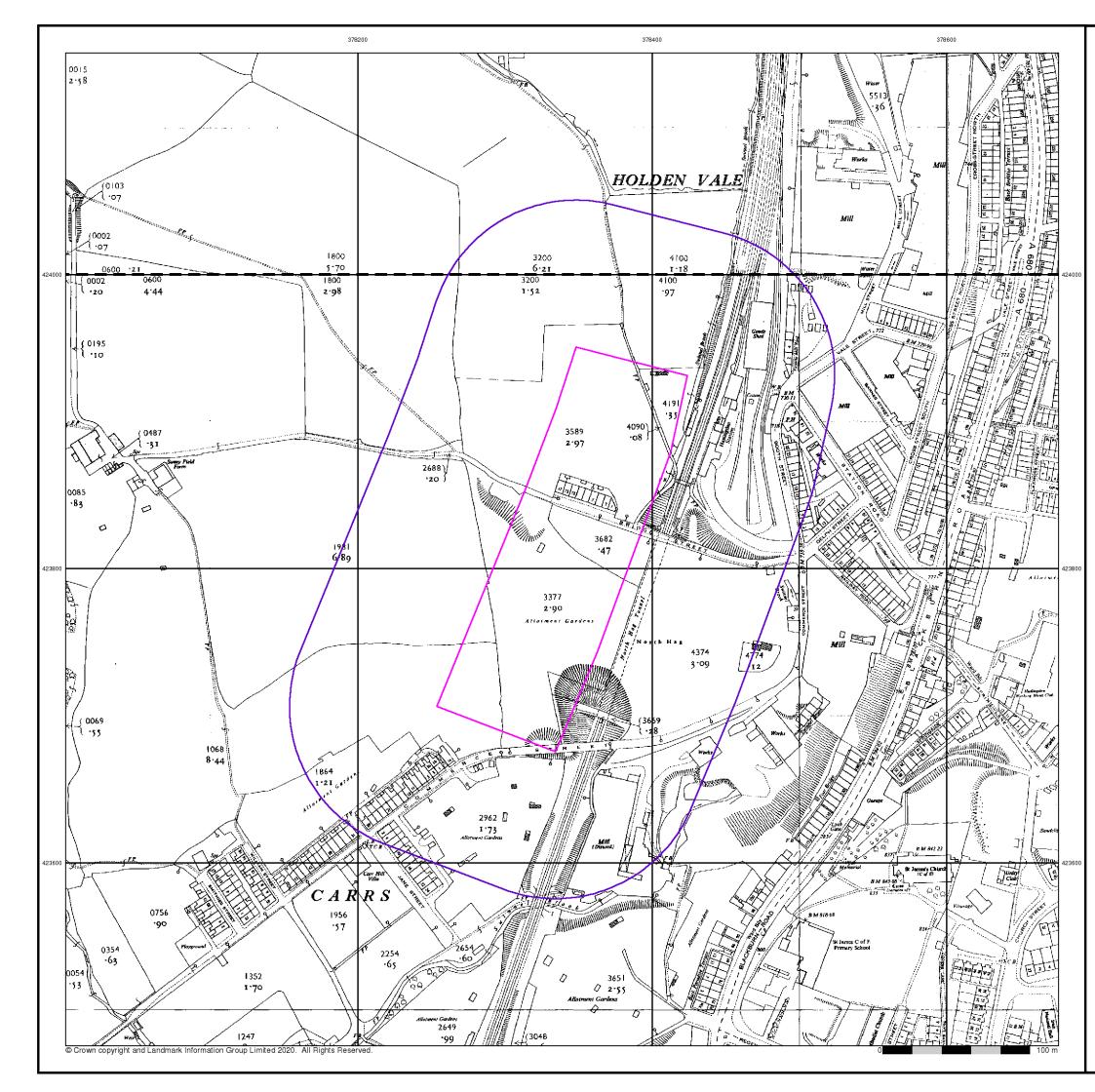
Site Details

Site at, Rossendale Valley, Lancashire



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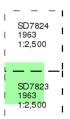
Ordnance Survey Plan

Published 1963

Source map scale - 1:2,500

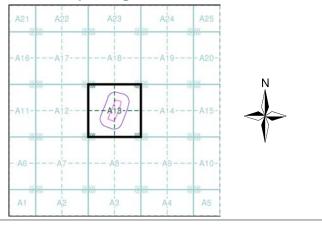
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



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Historical Map - Segment A13



Order Details

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National Grid Reference:	378340, 423810
Slice:	A
Site Area (Ha):	2.26
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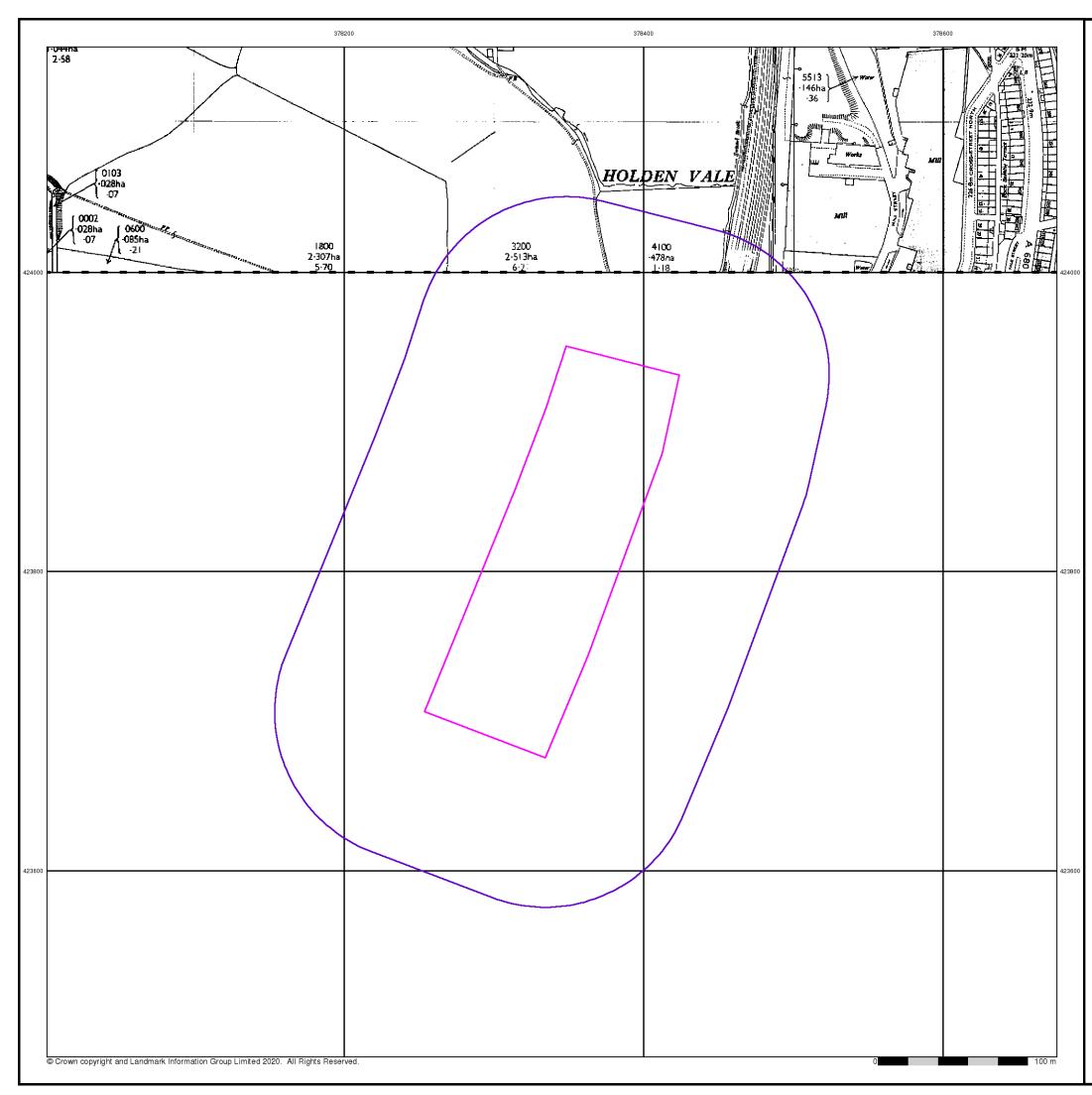
Site Details

Site at, Rossendale Valley, Lancashire



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Tel: Fax:





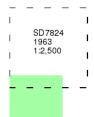
Additional SIMs

Published 1963

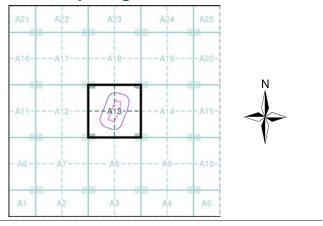
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	A
Site Area (Ha):	2.26
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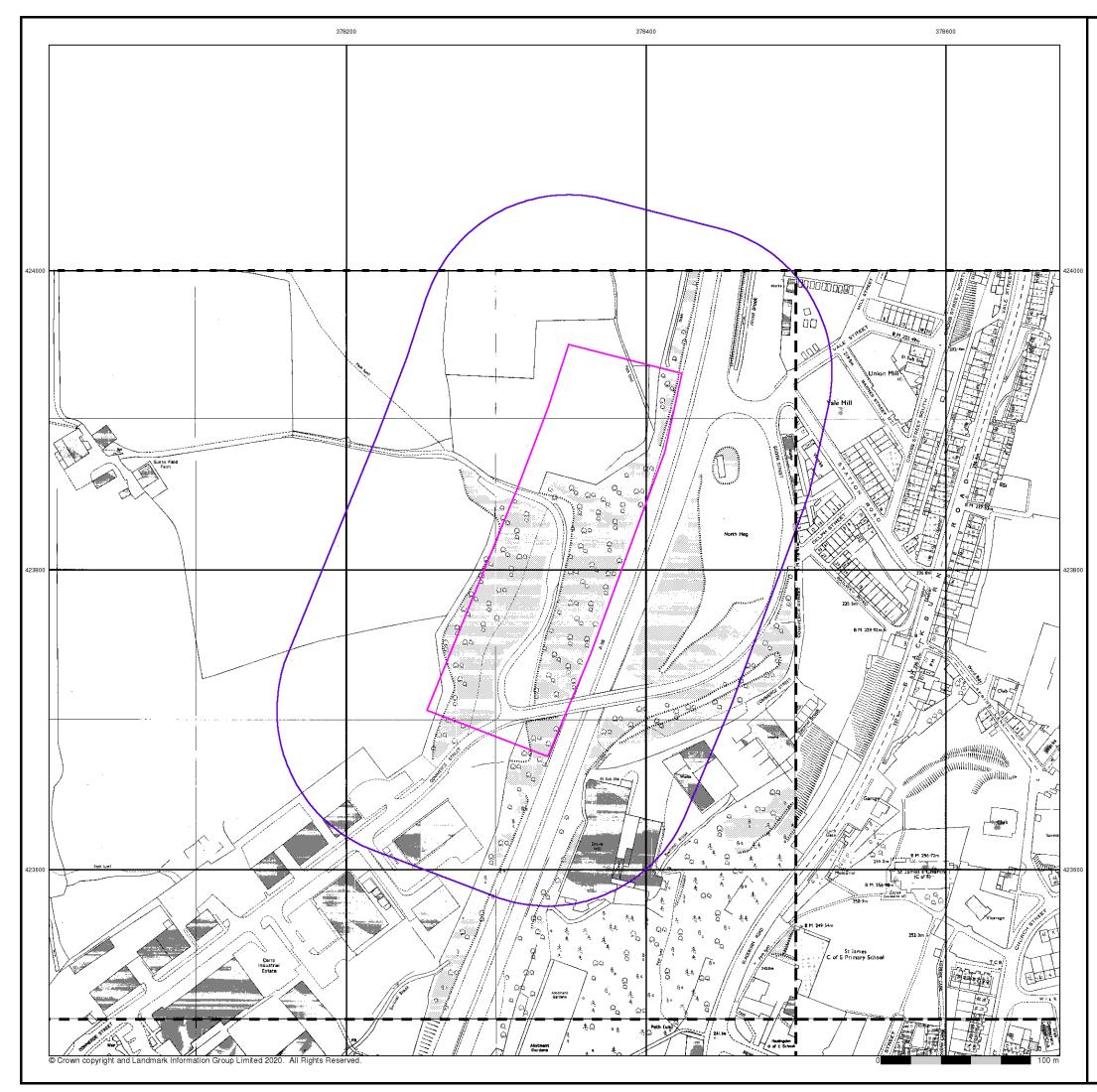
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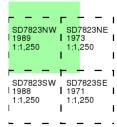
Ordnance Survey Plan

Published 1971 - 1989

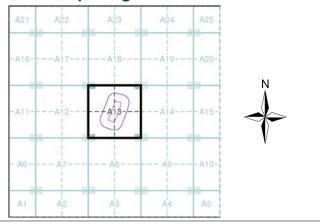
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	A
Site Area (Ha):	2.26
Search Buffer (m):	100

Site Details

Site at, Rossendale Valley, Lancashire

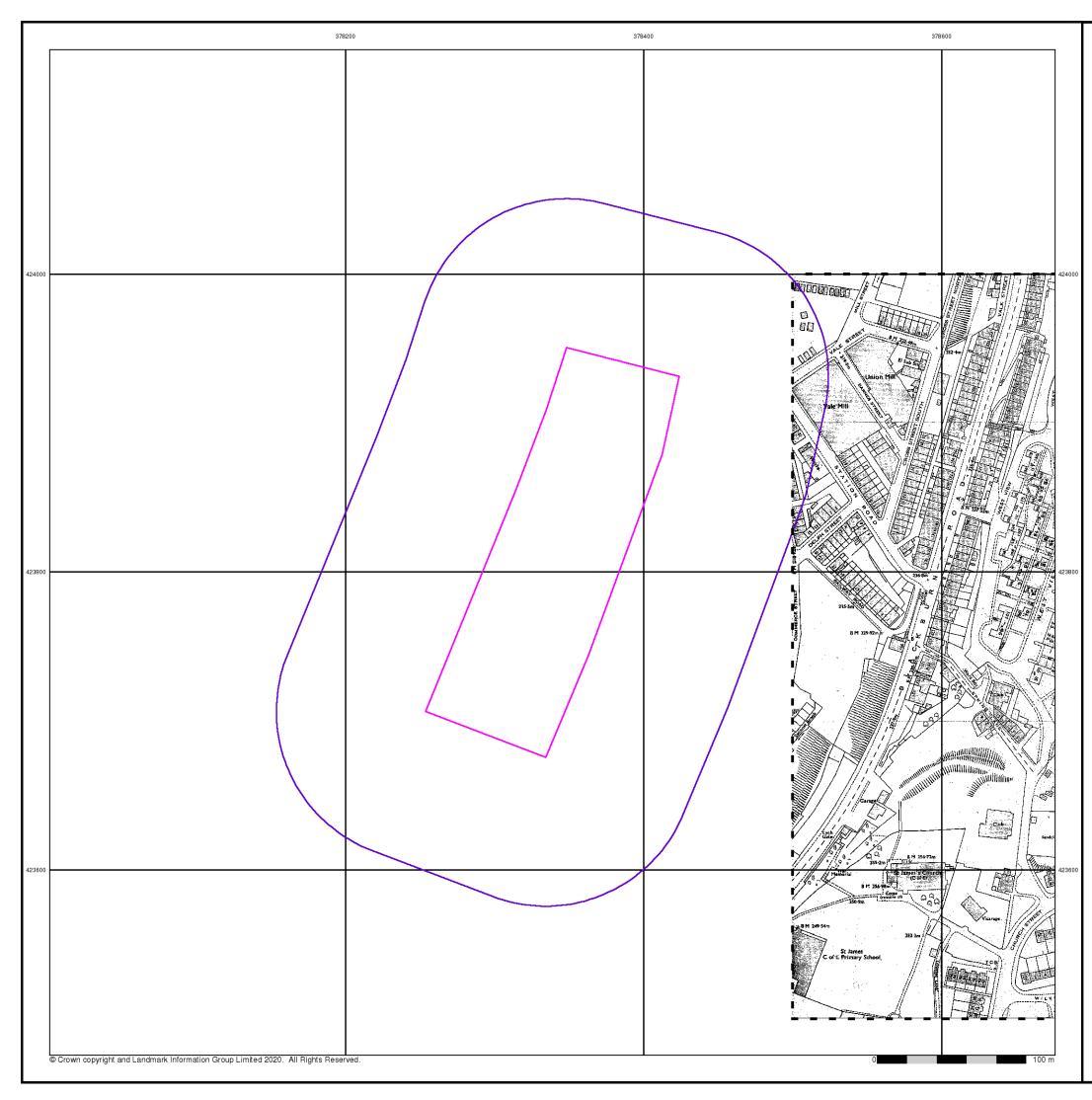


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Tel:

Fax:





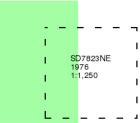
Supply of Unpublished Survey Information

Published 1976

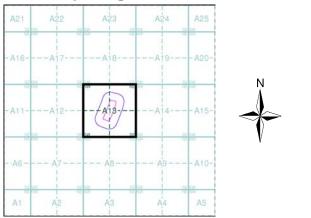
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	A
Site Area (Ha):	2.26
Search Buffer (m):	100

Site Details

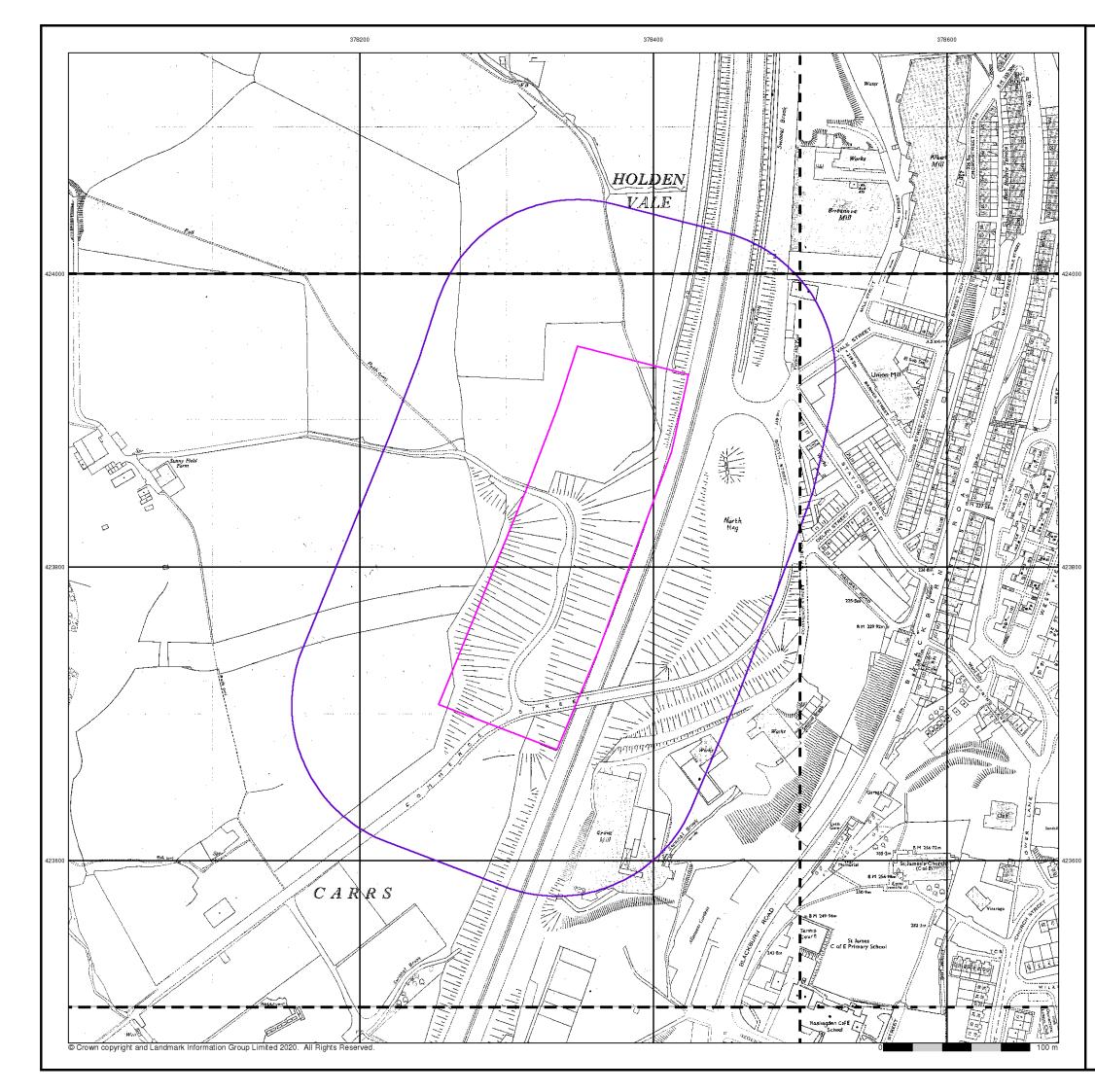
Site at, Rossendale Valley, Lancashire



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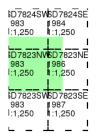
Additional SIMs

Published 1983 - 1987

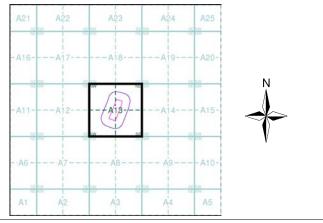
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	A
Site Area (Ha):	2.26
Search Buffer (m):	100

Site Details

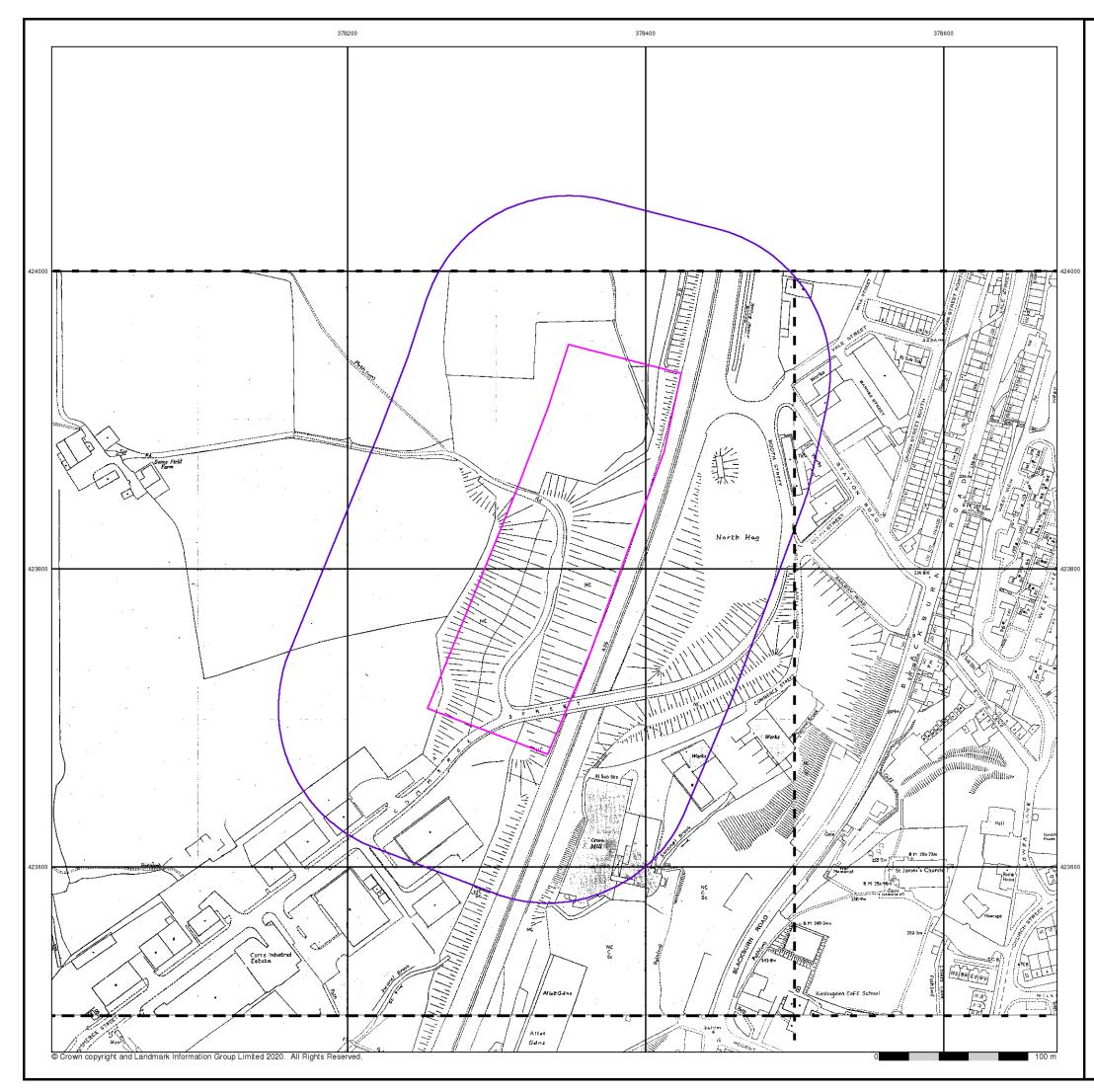
Site at, Rossendale Valley, Lancashire



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Tel:

Fax:





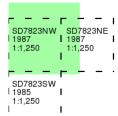
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Published 1985 - 1987

Source map scale - 1:1,250

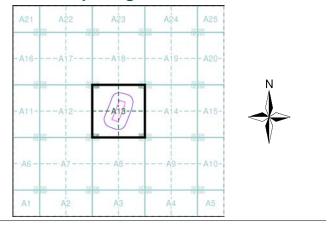
The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



_ _ _

Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
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Slice:	A
Site Area (Ha):	2.26
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Site Details

Site at, Rossendale Valley, Lancashire

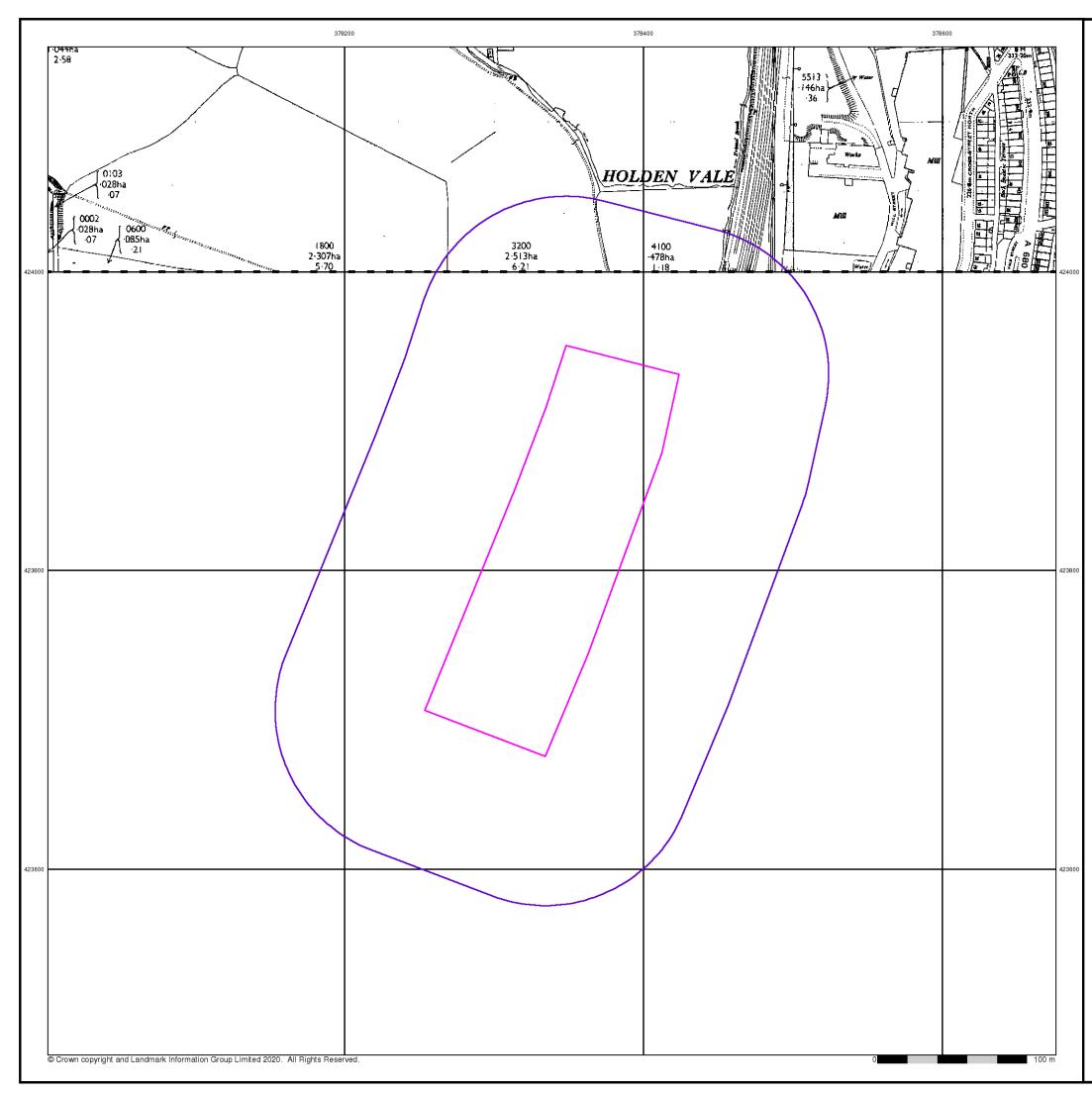


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Tel:

Fax:





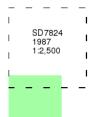
Additional SIMs

Published 1987

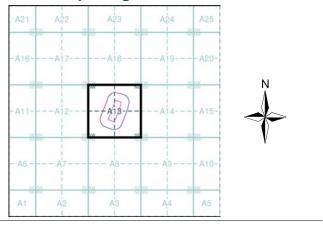
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	A
Site Area (Ha):	2.26
Search Buffer (m):	100

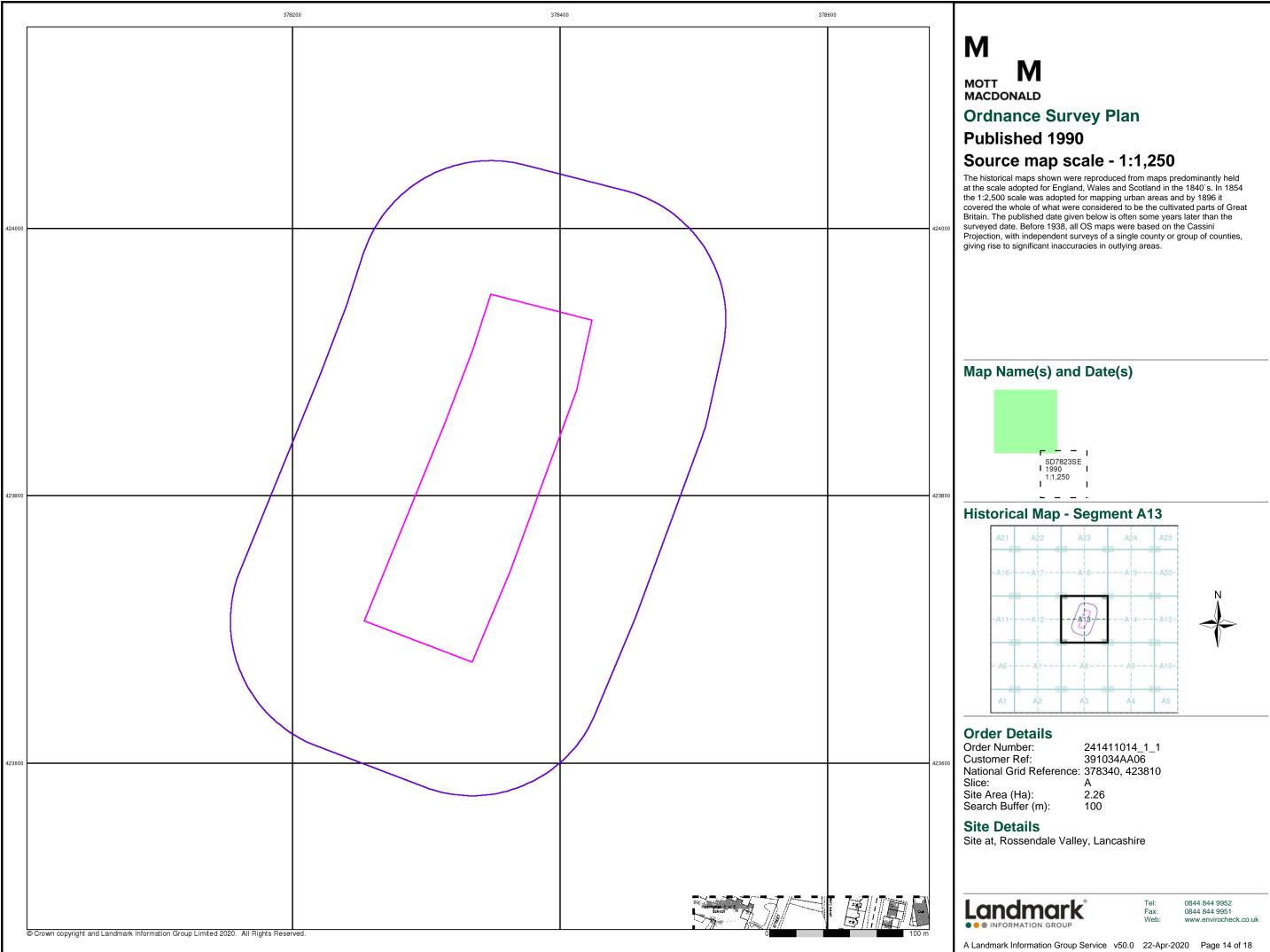
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Site at, Rossendale Valley, Lancashire

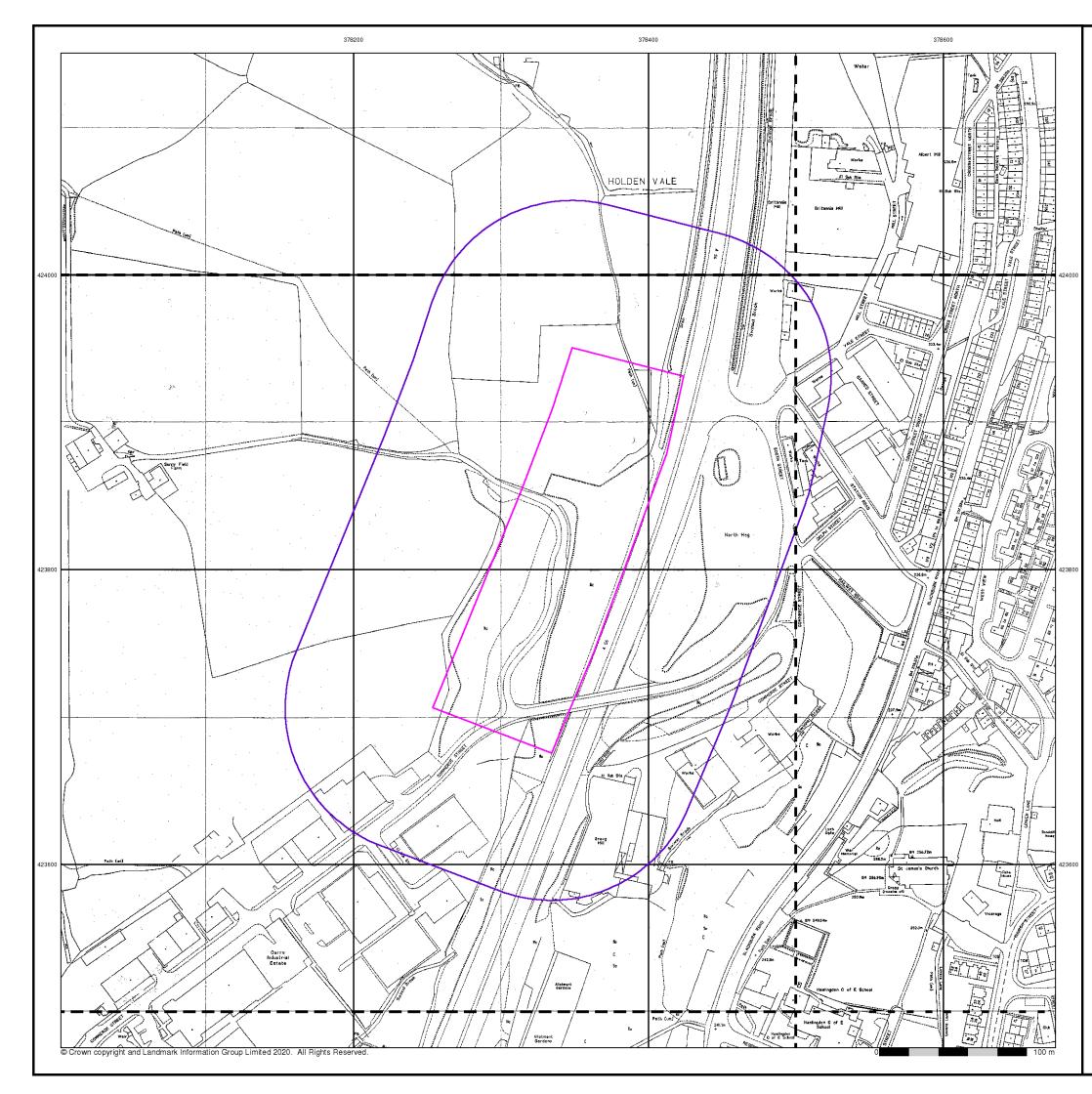


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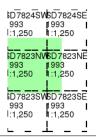
Large-Scale National Grid Data

Published 1993

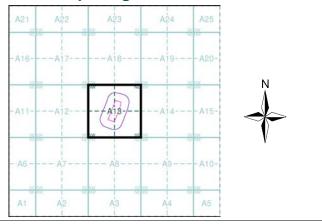
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	Α
Site Area (Ha):	2.26
Search Buffer (m):	100

Site Details

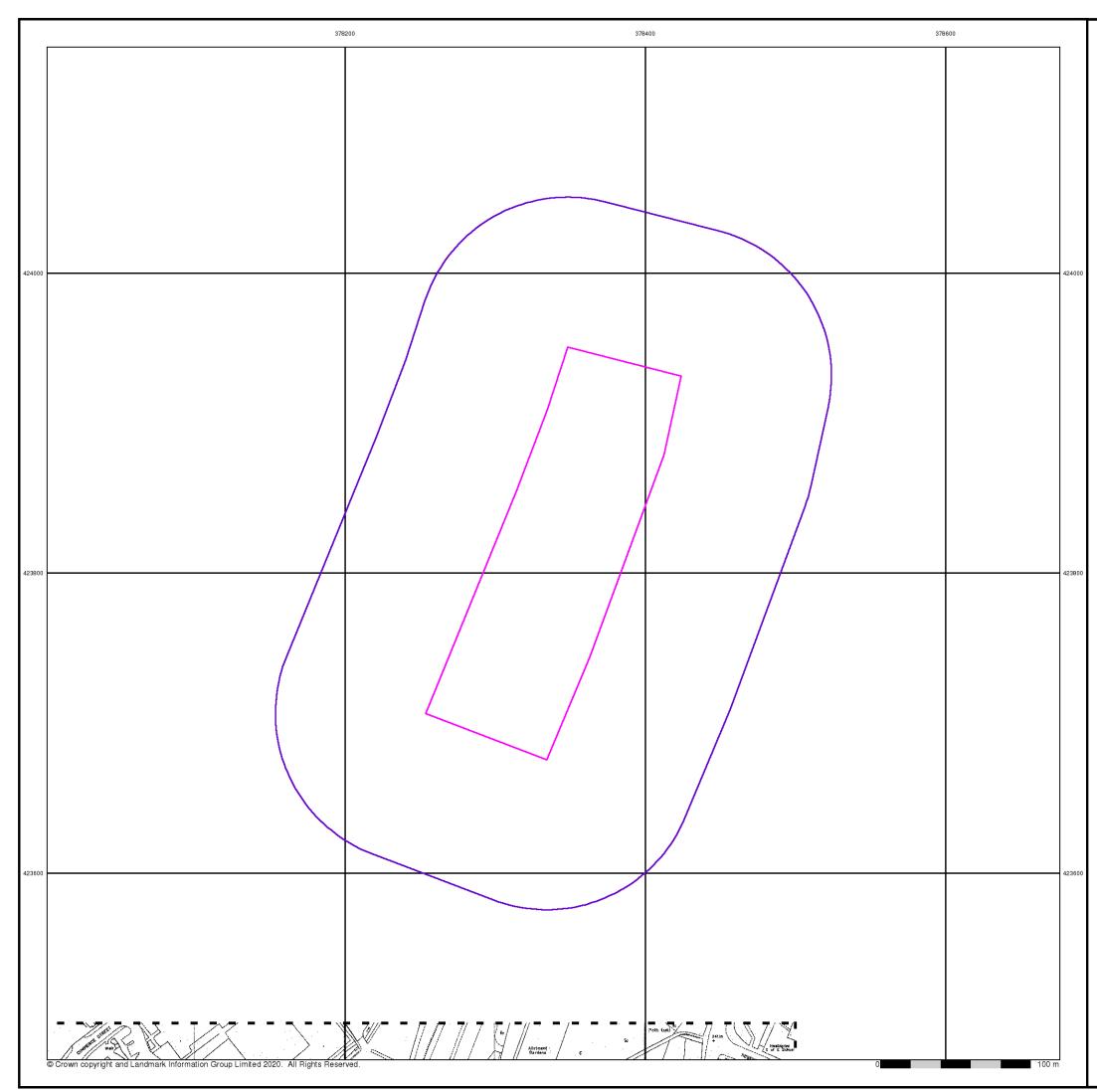
Site at, Rossendale Valley, Lancashire



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Tel:

Fax:





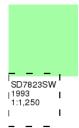
Large-Scale National Grid Data

Published 1993

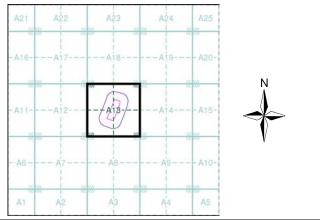
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

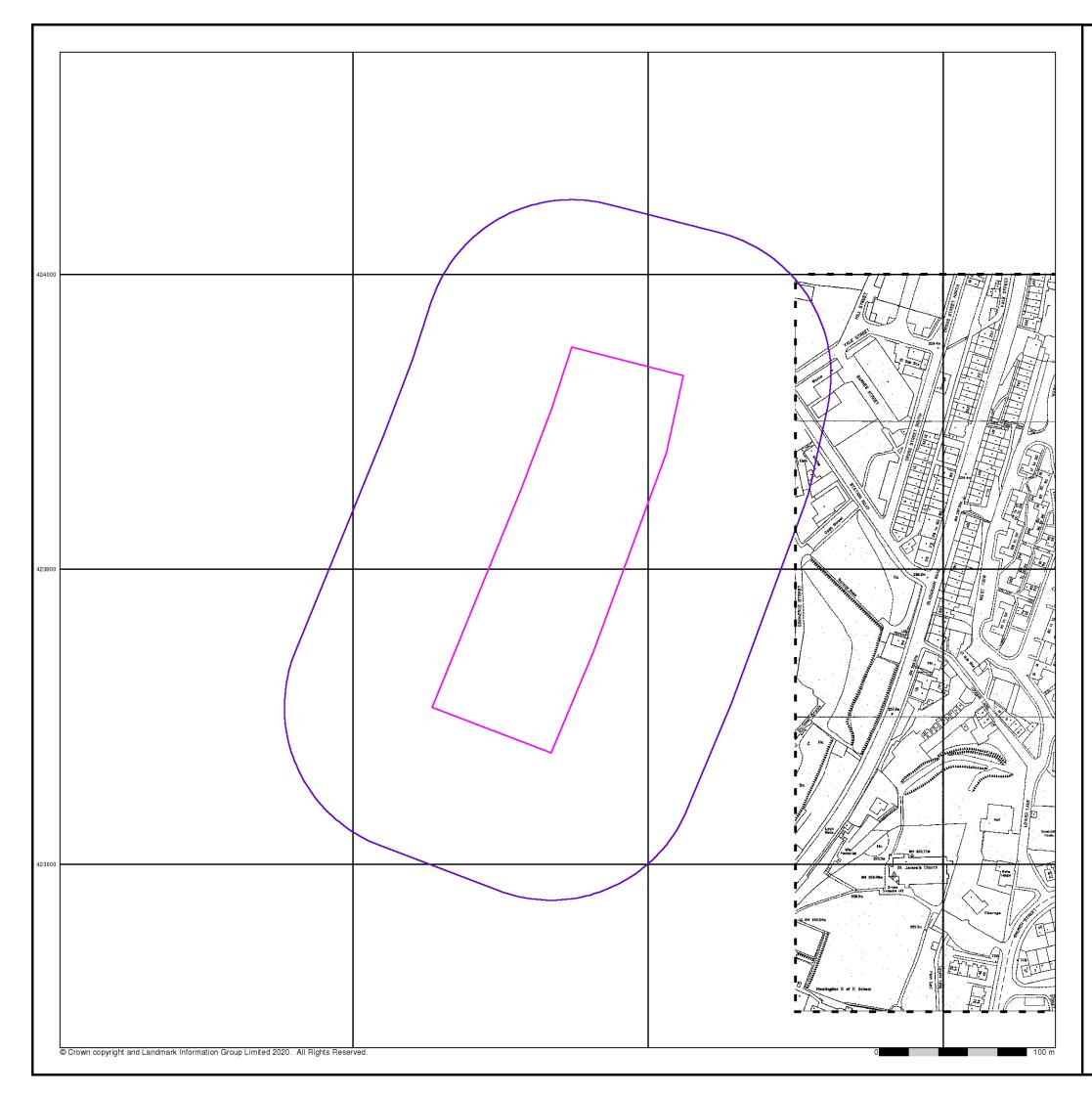
Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	Α
Site Area (Ha):	2.26
Search Buffer (m):	100

Site Details

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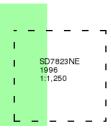
Large-Scale National Grid Data

Published 1996

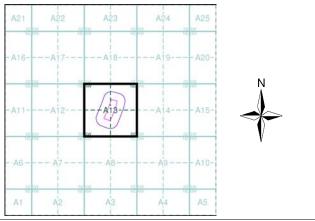
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	A
Site Area (Ha):	2.26
Search Buffer (m):	100

Site Details

Site at, Rossendale Valley, Lancashire



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Historical Aerial Photography

Published 2001

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13

A21	A22	nt ani	A23	PI NW	A24	A25	
A16	-A17-		-A18-		-A19-	A20-	
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A11	-A12-		A13-	<u>}</u>	-A14-	A15-	
ne nw Na nw		al an	-	50 iw		NEWW	V
A6	- A7-		- A8-		- A9 -	A10-	
A1	A2	<u>HERN</u>	A'3	RENW.	A4	A5	

Order Details Order Number: 241411014_1_1 Customer Ref: 391034AA06 National Grid Reference: 378340, 423810 Slice: Site Area (Ha): Search Buffer (m): A 2.26 100

Site Details

Site at, Rossendale Valley, Lancashire



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Historical Mapping Legends

Ordnance Survey	County Series 1:10,560	Ordı	nance Surve	y Plan 1	:10,000		1:10,000 Ras	ster Mapp	bing
Gravel Pit	Sand Other Pit Pits		Chalk Pit, Clay Pit or Quarry		°∂ Gravel Pit		Gravel Pit		Refuse tip or slag heap
C Quarry	. Shingle		Sand Pit	, 	 Disused Pit or Quarry 		Rock		Rock (scattered)
م	Reeds		Refuse or Slag Heap		Lake, Loch or Pond		Boulders	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Boulders (scattered)
4 2 5 4 5 4 5 4 5 4 5 5 4 5 5 6 5 6 5 6 5 6			Dunes	°°°°	b Boulders	(Shingle	Mud	Mud
Mixed Wood D	eciduous Brushwood		Coniferous Trees	$\varphi \circ \varphi$	Non-Coniferous Trees	Sand	Sand		Sand Pit
		ငှ ငှ on	chard ມູດ	Scrub	¦γ _n γ Coppice	********	Slopes	لالالالالالال	Top of cliff Underground
Fir	Furze Rough Pasture	പ്പ് Bra	acken 🗤	Heath '	、,,,,Rough Grassland		General detail Overhead detail		detail Narrow gauge railway
Arrow denotes	⊾ Trigonometrical Station	<u></u> Ma	arshV///	Reeds	<u>ے ب</u> ے Saltings		Multi-track railway		Single track railway
🕂 Site of Antiquiti	es 🛧 Bench Mark	Bu	Direct	tion of Flow of V	Water		County boundary (England only) District, Unitary,	•••••	Ci∨il, parish o community boundary
Pump, Guide P Signal Post • 285 Surface Level	ost, Well, Spring, Boundary Post	Gla	asshouse	**	Sand		Metropolitan, London Borough boundary		Constituency boundary
Sketched Contour	Instrumental Contour	Sic	pping Masonry	Pylon — — — · Pole	Electricity Transmission Line	۵ ^۵ **	Area of wooded vegetation Non-coniferous	۵۵ ۵۵	Non-conifero trees Coniferous
Main Roads	Minor Roads	Cutting	Embankme			Ω 	trees (scattered)		
Sunken Roa		⊔	//	<u></u>		* ج ج	trees (scattered)	<u>A</u>	tree Coppice
Road over Railway	Railway over River	Road '''∏''' Under	Road // Leve Over Crossi			ት	Orchard Rough		or Osiers
Railway over	r Level Crossin	3	-+ + + + +	 	+ Narrow Gauge	ດາໂມ ດດ_	Grassland		Heath Marsh, Salt
Road over	Road over		Geographical Cou Administrative Co or County of City	ounty, County E	Borough	0n_	Water feature	-3 <u>V</u> i∠ ←	Marsh or Re
Road over			Municipal Boroug Burgh or District (Borough, Burgh c	ıh, Urban or Ru Council	·	MHW(S)	Mean high	< MLW(S)	Mean low
// Stream	ndary (Geographical)		Shown only when no Civil Parish Shown alternately wi	t coincident with	other boundaries		water (springs) Telephone line	-••-	water (spring Electricity transmission
_	∨il Parish Boundary	BP, BS Bou	ndary Post or Stone	Pol Sta	Police Station	←	(where shown) Bench mark	٨	(with poles) Triangulatior
	ve County & Civil Parish Boundary	Ch Chu	•	P0 I	Post Office Public Convenience	BM 123.45 m	(where shown) Point feature	Δ	station Pylon, flare s
Co. Boro. Bdy.	bugh Boundary (England)	FB Foot	Engine Station t Bridge	SB	Public House Signal Box	•	(e.g. Guide Post or Mile Stone)	\boxtimes	or lighting to
County Bur		Fn Fou	ntain	Spr :	Spring	•	Site of (antiquity)	******	0
Co. Burgh Bdy. Y Y. RD. Bdy. RD. Bdy.	t Boundary	GP Guid	de Post Post	тсв	Telephone Call Box Telephone Call Post	•‡•	Site of (antiquity)		Glasshouse

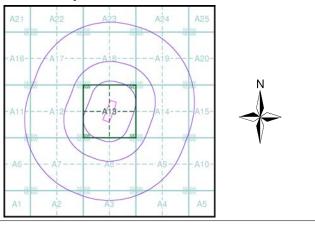
MOTT MACDONALD Historical Mapping & Photography included:

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Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:10,560	1849	2
Lancashire And Furness	1:10,560	1894	3
Lancashire And Furness	1:10,560	1911 - 1912	4
Lancashire And Furness	1:10,560	1931	5
Lancashire And Furness	1:10,560	1931	6
Lancashire And Furness	1:10,560	1938	7
Ordnance Survey Plan	1:10,000	1955 - 1956	8
Ordnance Survey Plan	1:10,000	1965	9
Ordnance Survey Plan	1:10,000	1979	10
Ordnance Survey Plan	1:10,000	1981	11
Ordnance Survey Plan	1:10,000	1990 - 1991	12
10K Raster Mapping	1:10,000	2001	13
10K Raster Mapping	1:10,000	2006	14
VectorMap Local	1:10,000	2020	15

Historical Map - Slice A



Order Details

Order Number: Customer Ref: 391034AA06 National Grid Reference: 378340, 423810 Slice: Site Area (Ha): Search Buffer (m):

241411014_1_1 А 2.26 1000

Site Details

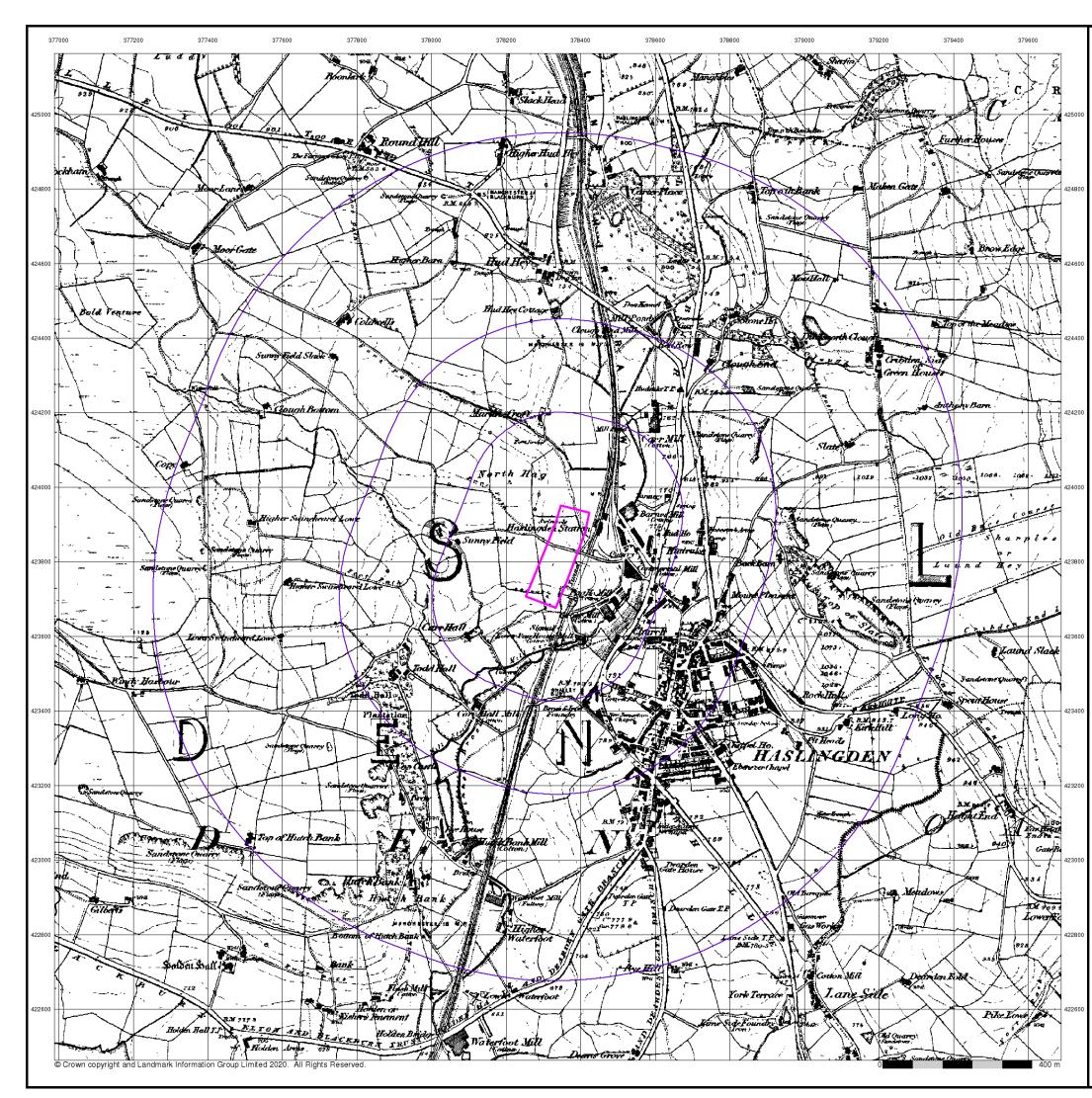
Site at, Rossendale Valley, Lancashire



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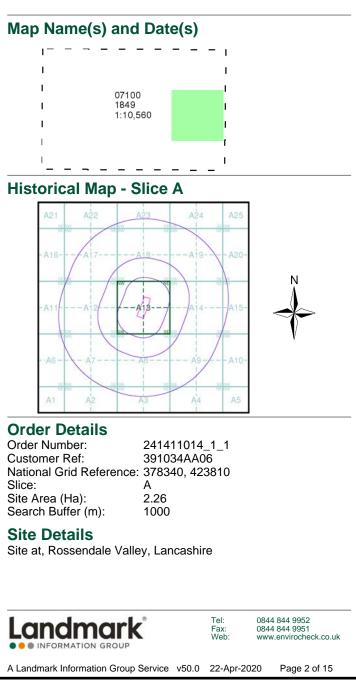


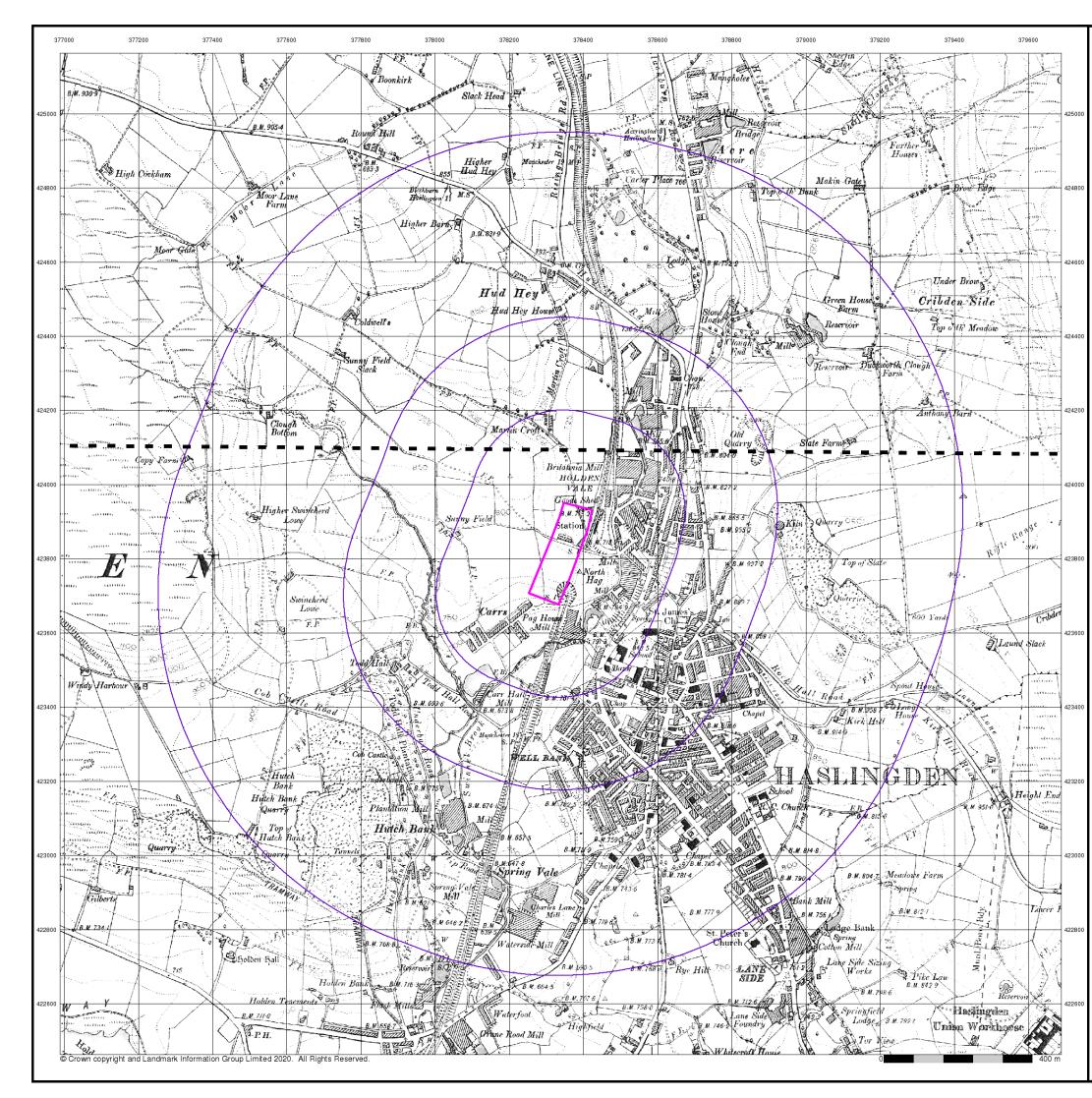


Lancashire And Furness

Published 1849

Source map scale - 1:10,560





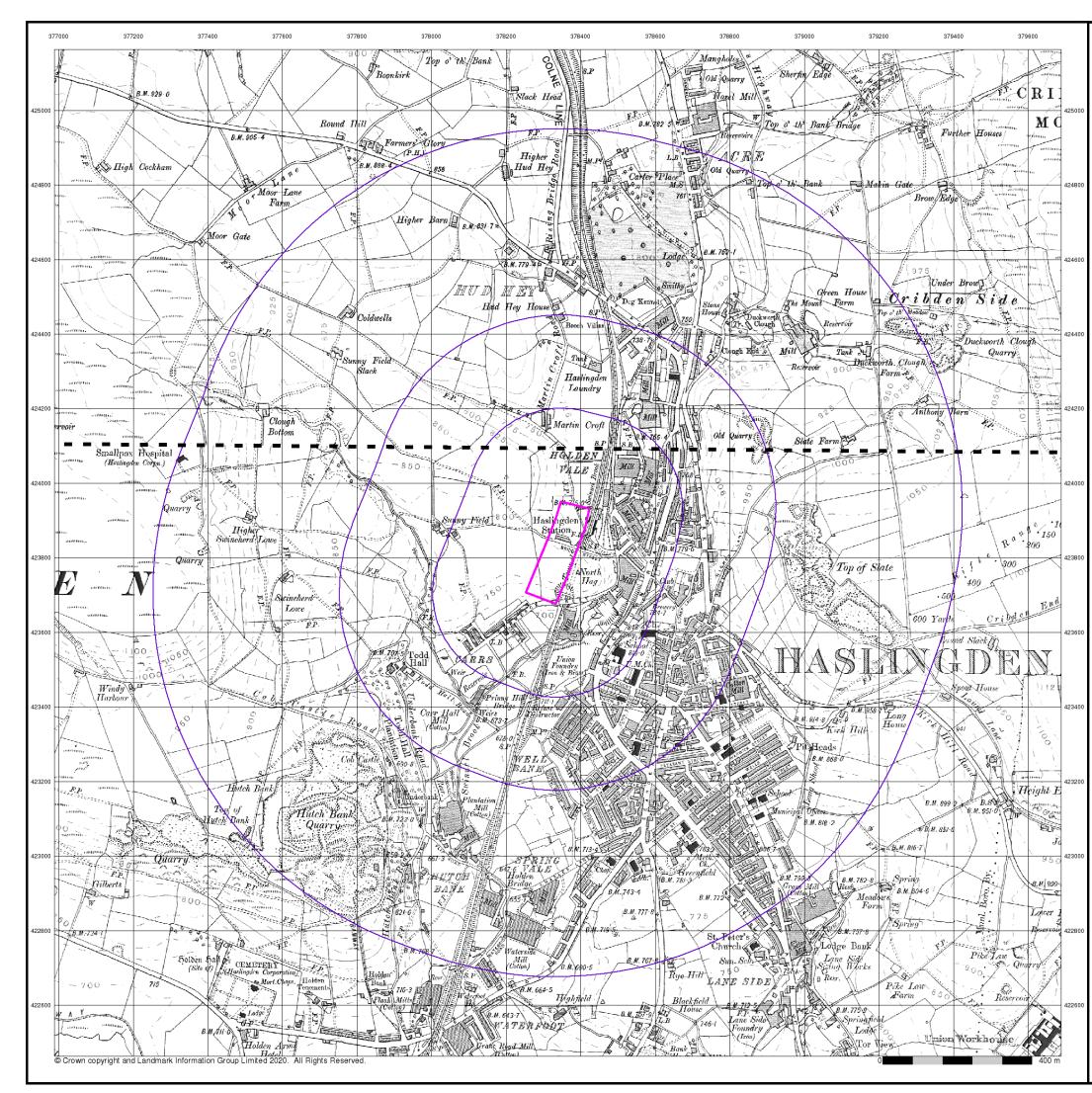


Lancashire And Furness

Published 1894

Source map scale - 1:10,560





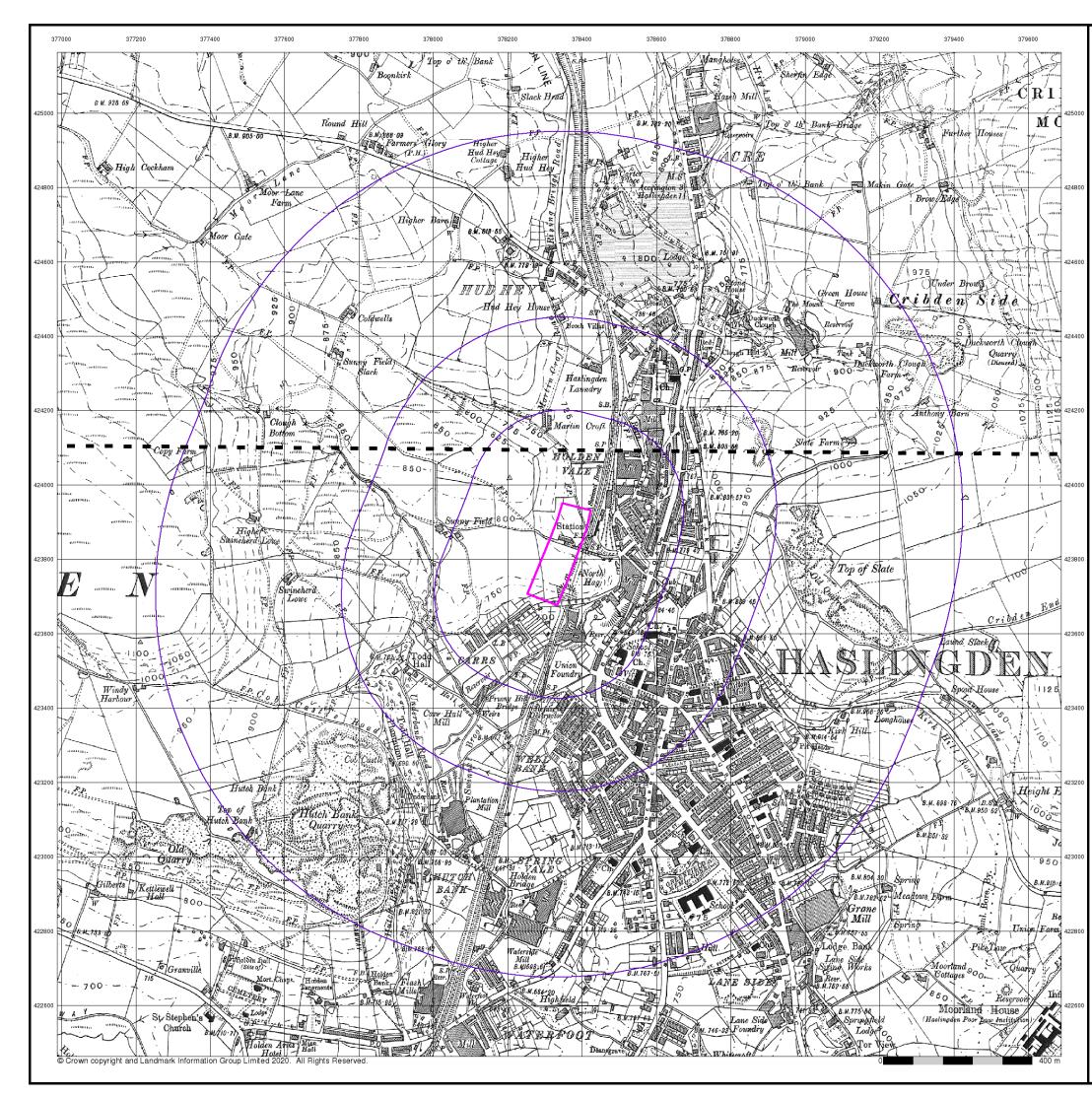


Lancashire And Furness

Published 1911 - 1912

Source map scale - 1:10,560





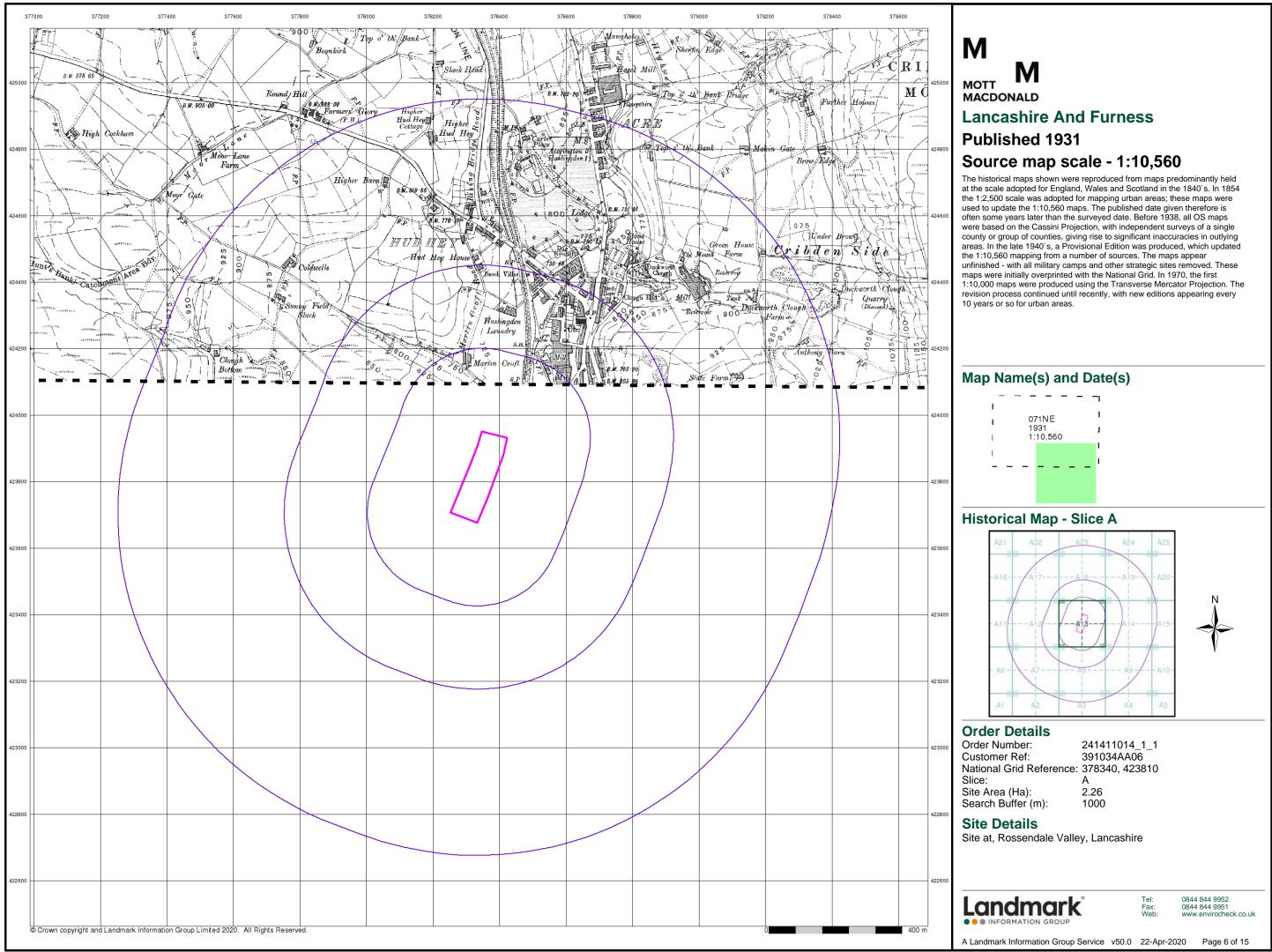


Lancashire And Furness

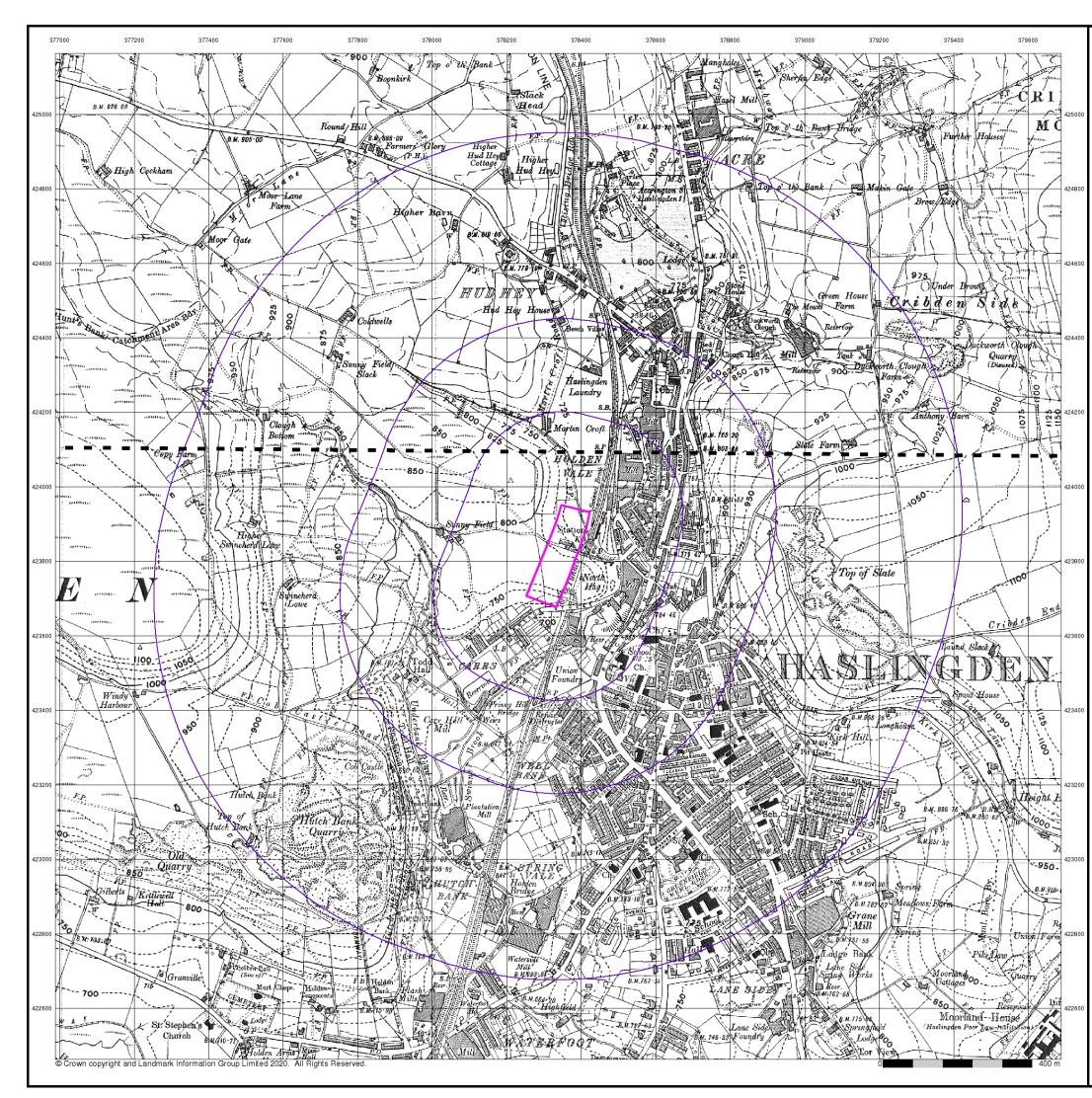
Published 1931

Source map scale - 1:10,560









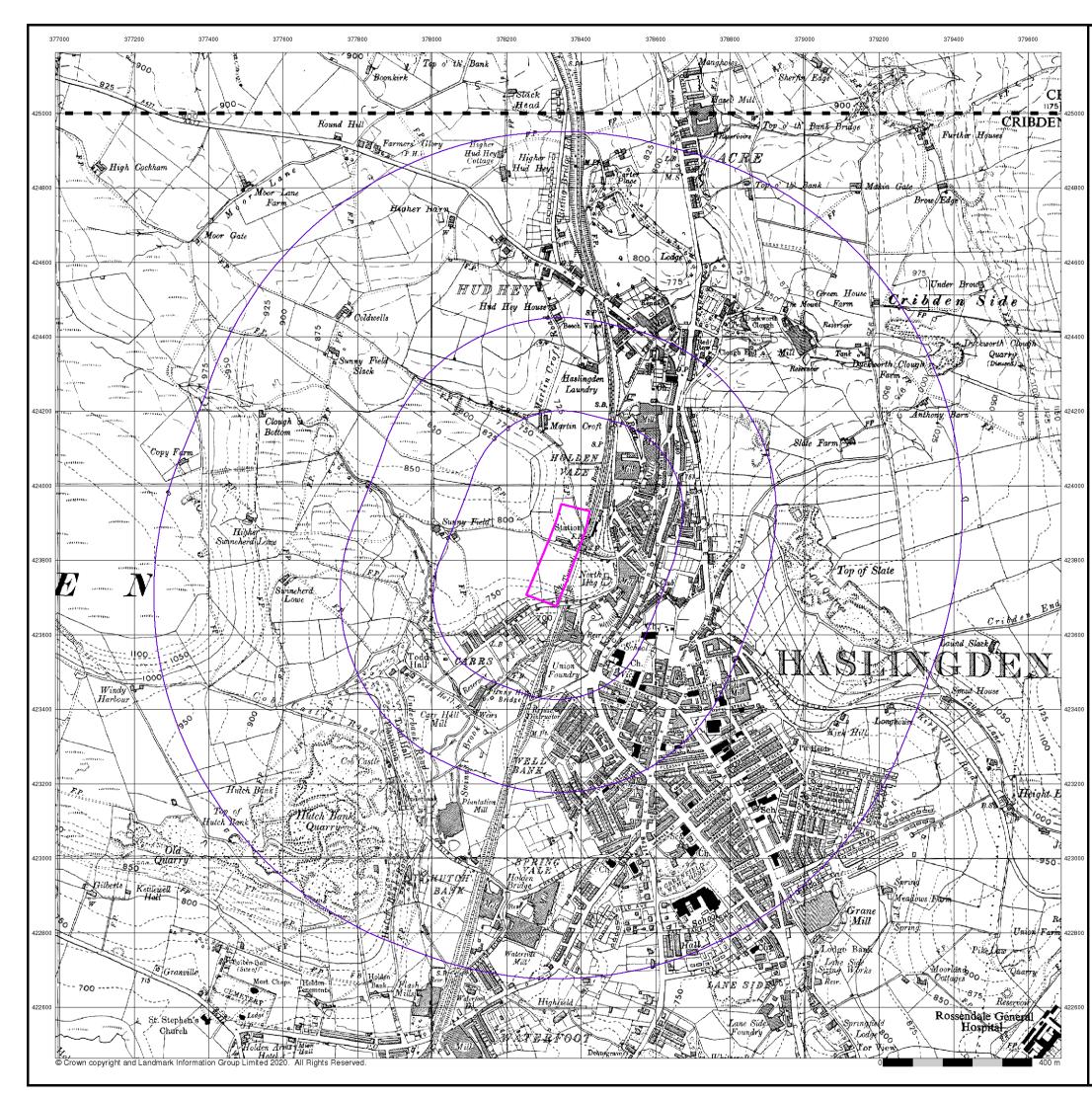


Lancashire And Furness

Published 1938

Source map scale - 1:10,560



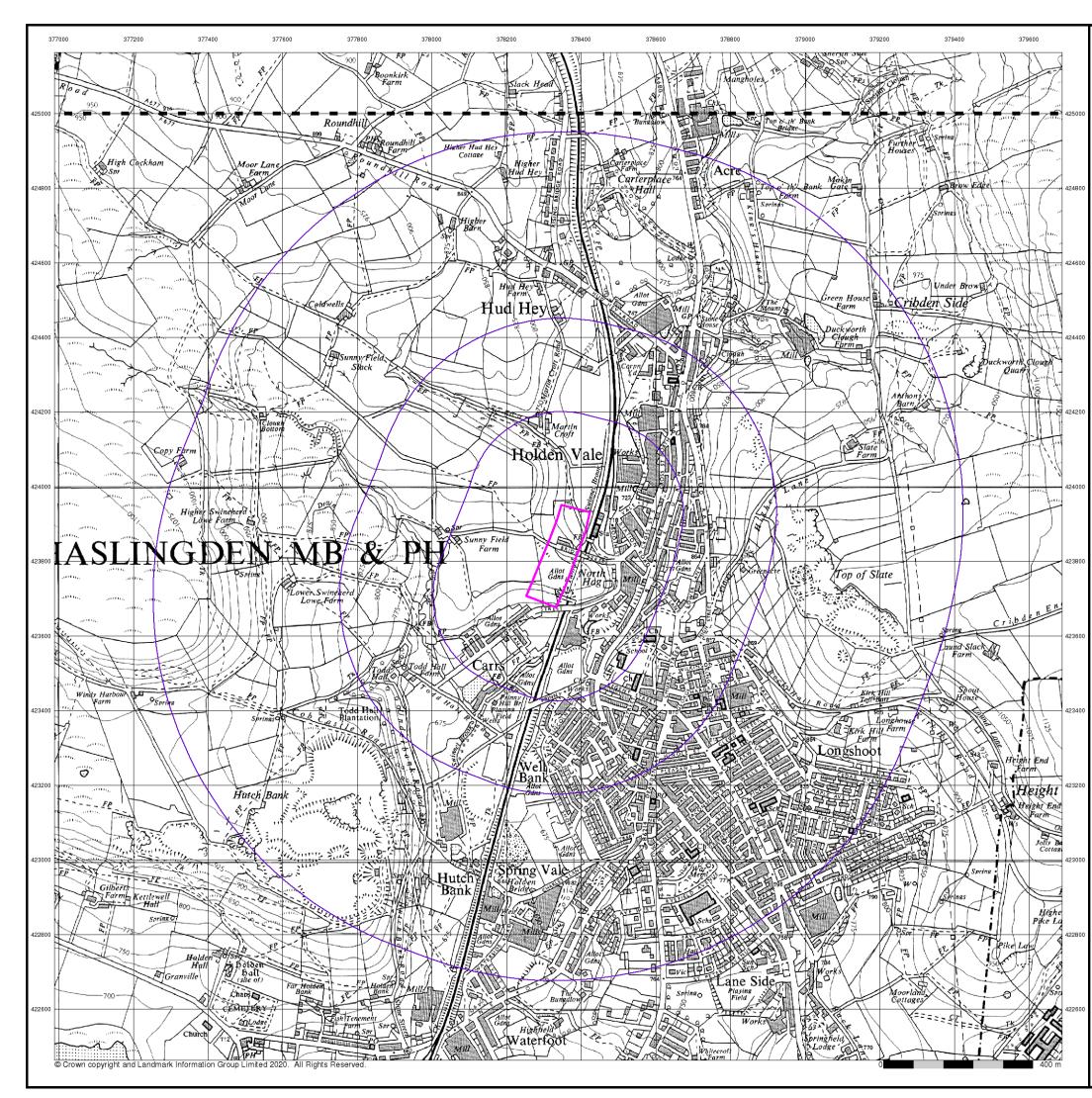




Ordnance Survey Plan Published 1955 - 1956

Source map scale - 1:10,000



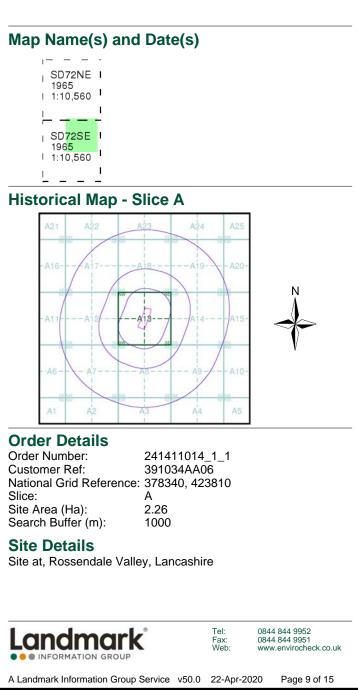


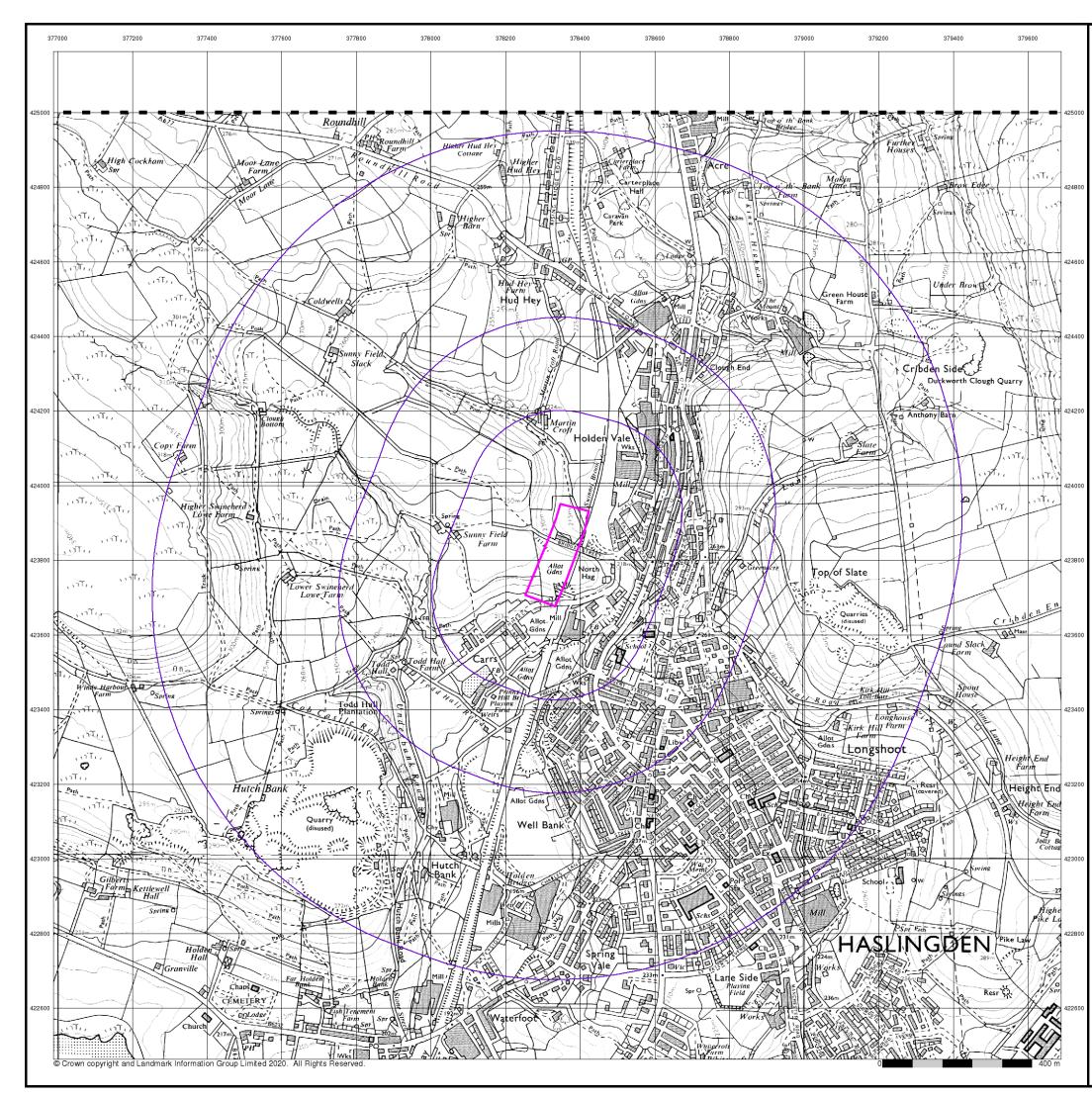


Ordnance Survey Plan

Published 1965

Source map scale - 1:10,000



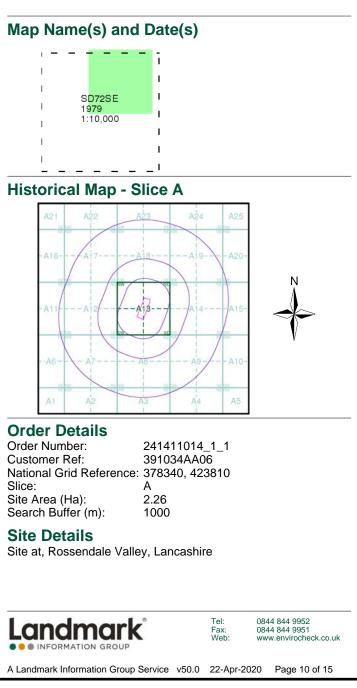


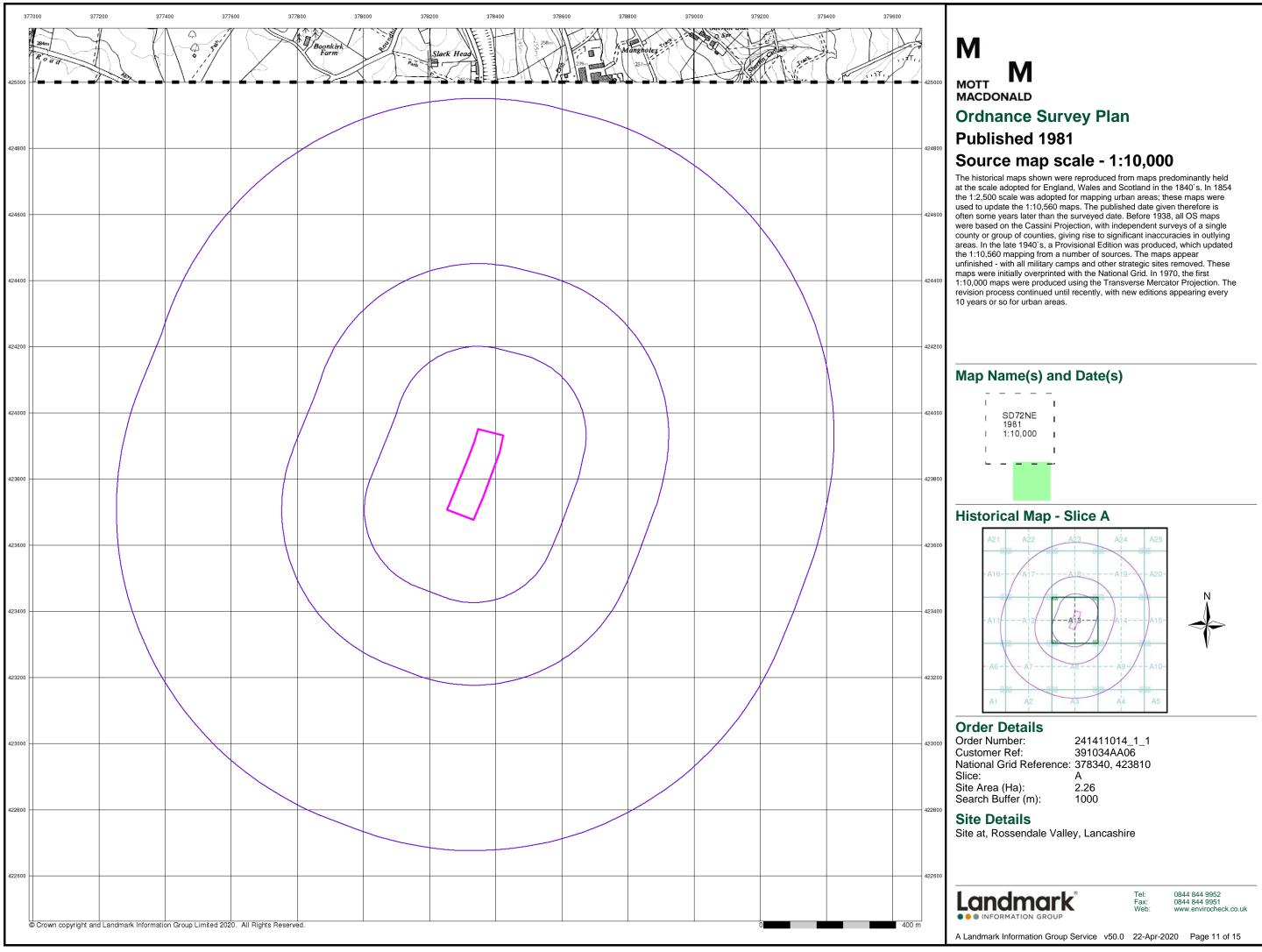


Ordnance Survey Plan

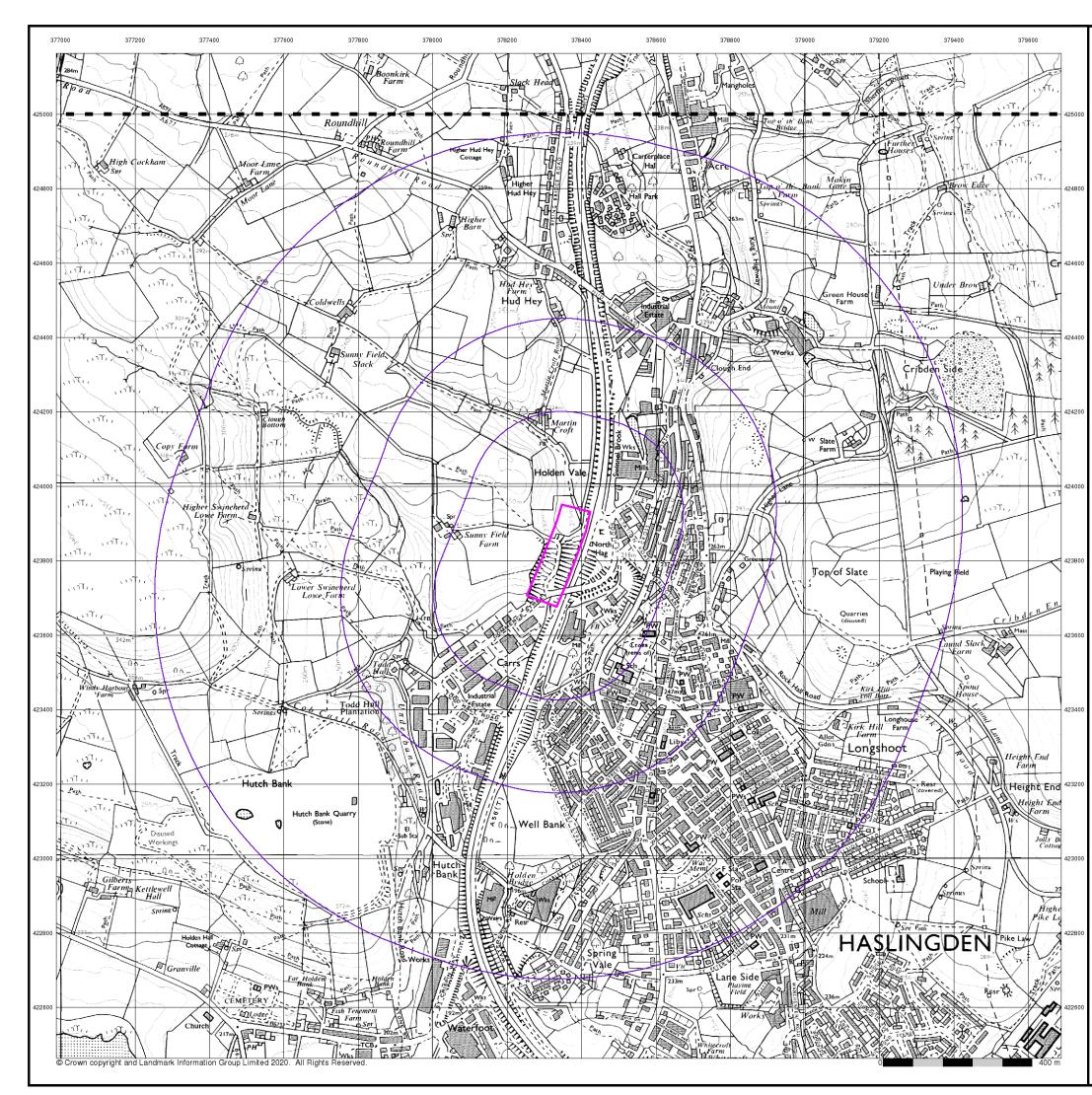
Published 1979

Source map scale - 1:10,000











Ordnance Survey Plan

Published 1990 - 1991

Source map scale - 1:10,000







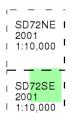
10k Raster Mapping

Published 2001

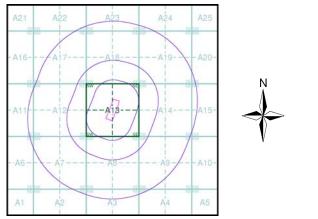
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 241411014_1_1 Customer Ref: National Grid Reference: 378340, 423810 Slice: А Site Area (Ha): Search Buffer (m): 2.26 1000

391034AA06

Site Details

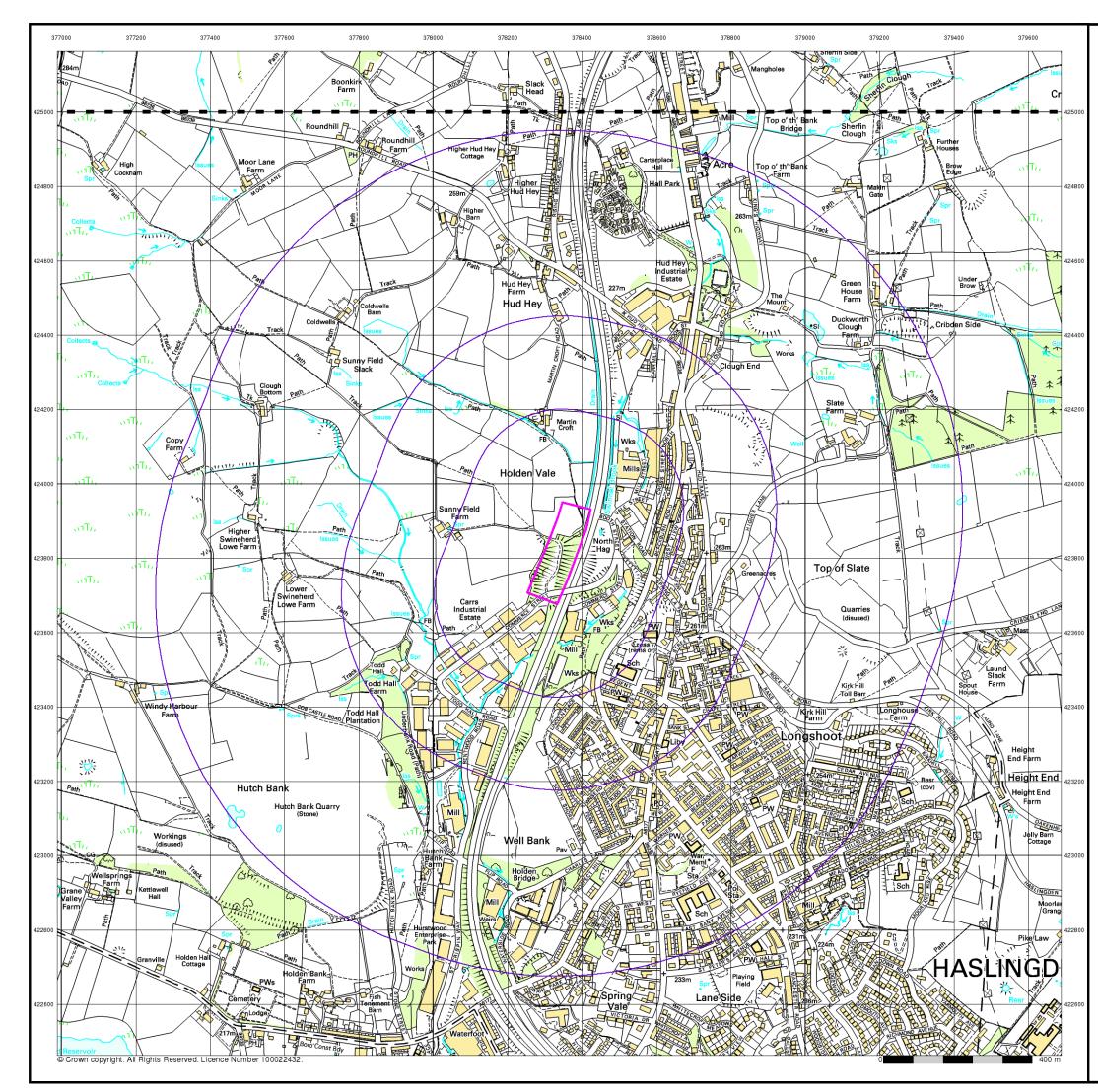
Site at, Rossendale Valley, Lancashire



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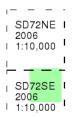
10k Raster Mapping

Published 2006

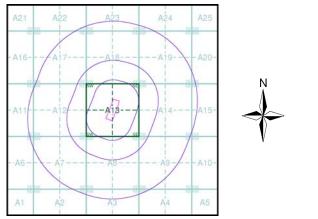
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 241411014_1_1 Customer Ref: National Grid Reference: 378340, 423810 Slice: А Site Area (Ha): Search Buffer (m): 2.26 1000

391034AA06

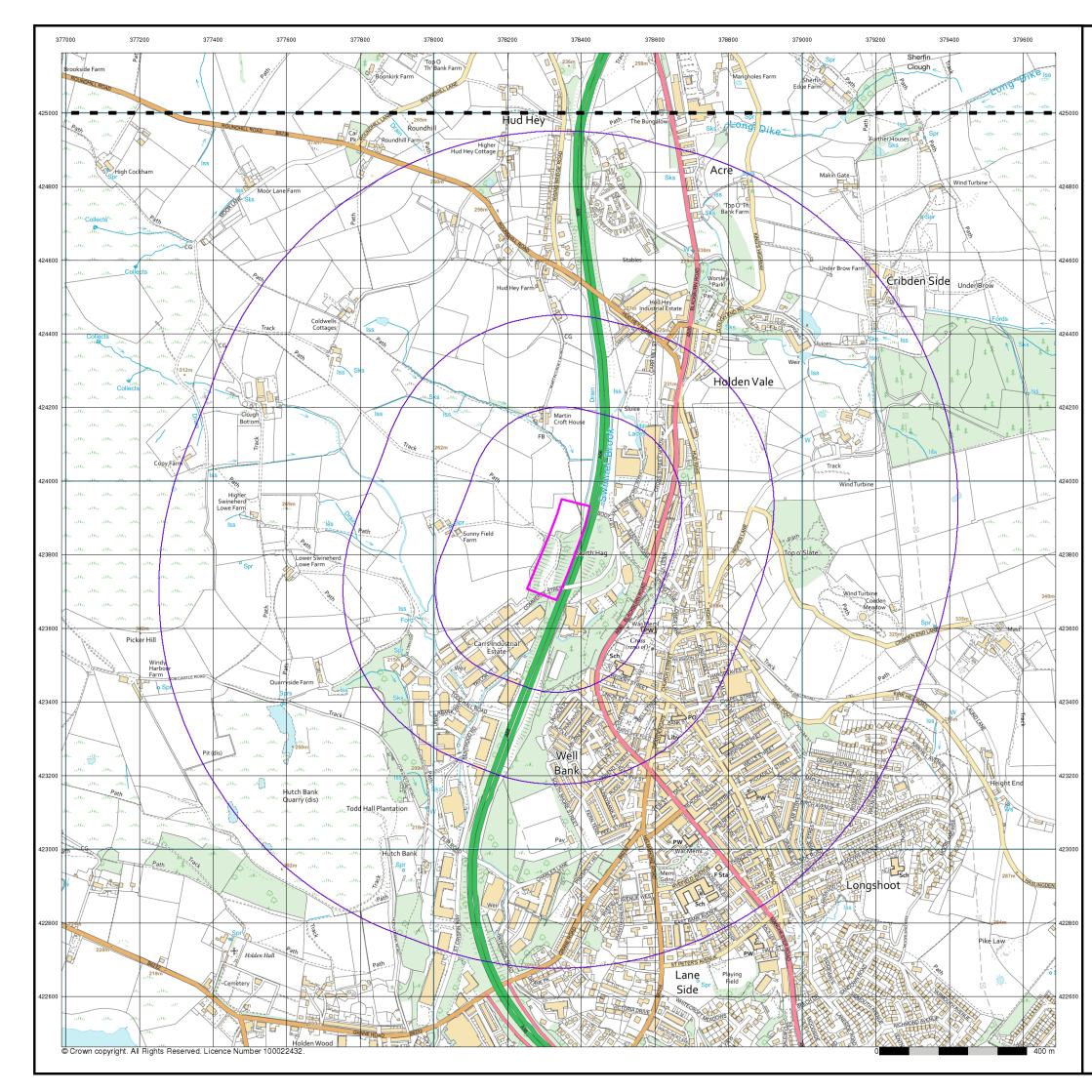
Site Details

Site at, Rossendale Valley, Lancashire



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Μ Μ MOTT MACDONALD

VectorMap Local

Published 2020

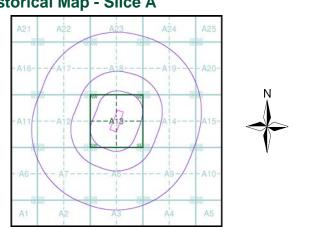
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

- | SD72NE | 2020 | Variable |
- <u>_</u>
- SD72SE
- 2020 Variable

Historical Map - Slice A



Order Details

Order Number: Customer Ref: National Grid Reference: 378340, 423810 Slice: Site Area (Ha): Search Buffer (m):

241411014_1_1 391034AA06 А 2.26 1000

Site Details

Site at, Rossendale Valley, Lancashire



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B. Historical Boreholes

		MAIN ROUTE CHA SIDE ROID CHAI		SET 6n EAS	ST			22	375	GROU	ND LEVEL;
0		cription of Strat	m	Depth	Samp 123 K	e M ey	.c. d	LL/PL/PI Core Rec'y	Class'r	N Vaiue	Water & Ca
British Geol	Soft	TOPSOIL	British (0.2	3 U	4 2	8.9		Deitiah /	Seological Survey	Started 20.9.
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	with gravel si	ite stones.		1.5							
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ļ	silty sandy (
3	with cobbles a	and boulders.					0.6				
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10											
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	G.L 0.45	-	•• .	28.9	-		-		-	Topsoil and	stony clay
1	1.50 - 1.95	-	-	13.4	-		-		-	Sand and gr	svel
ĺ ĺ	2.90 - 3.35	-	-	11.6			-		-	Sand and gr	avel
	4.20 - 4.65	2295	2015	13.9	130		65		-	100 U.C.T.	
	5.80 - 6.25	-	-	9.1	-		-		-	Sand	
1	7.50 - 7.95	-	-	8.3	-		-		-	Sand and gr	avel
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undari UCUI	yısal odlifiği		DHIIANA	culuğılal dum					Linuari	zeorogiear oarrej	
	COMPACTIC	ON AND OT	HER TEST	RESULT	ſS						
	Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	\$.G.	Air Voids	C.B.R	SO3 gm/litre	рН	R٤	narks or other te
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				F	1	1	1	4 1			
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· f	6	BOREHOL	E DATA SHEI	ET No	OF	:5)7	251	Eliz		5 <u></u>
			N - HASLINGDEN AINACE 2650m			\sim	<u> </u>	~~~			
-	LUCATION	SIDE ROAD CHAI	INAGE 52n OFF	SET 6m EAS	ST Sample		·	LL/PL/PI			ND LEVEL 239.0
10	Desc	ription of Stratu		Depth	123 Key	M.C		ora Rec'y		n N Value	Water & Casing D
sh Ge	logical Survey See Sheet N	io . 1	British (Geobgical Sun	SP	-			Diiis	h (lechi gina 55 urve	WE (Slaght) 10.0:
11					B	10.	<u>6</u> c	rading	SF		
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ł	dark grey-bro varved clayey						-				
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ŀ	-	~		,,,	U4	6.7		ading	GW		
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t	Claybound to				H w	7.0	,				
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				18.5	SP	5.5	;		SU+G	P ¥ = 50 for 250mm	
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20	STRENGTH	TEST RESU	JLTS							· •••	
ſ	Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. S (kN/n	itress		nesion /m²)	Ø		Remarks
	15.40 - 15.85	-	- .	6.7	-		-		-	Sand and gr	avel
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									·		<u> </u>
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sh Geo	onical Survey		• Rriligh	Geological Supr		-				h Geological Surve	
	COMPACTIC	ON AND OT			1						
	Depth of Sample	Compaction	Dry Dens'y (kg/m3)	₩.C. (%)	S.G.	Air Voids	C.B.R	SO3 gm/litre	рН	Re	marks or other tests
					1		(. 1			

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NICLINC		LANCAS	HIRE COUN	тү со					. 1	JOB No	5
· · ·	SCHEME	BOREHOL A.56 DIVERSION	E DATA SHEE - HASLINGDEN 1 INACE 2650m OF	1 No 10 ACCRIN	GTON	: <	^y D	725	É/13		o
	LOCATION	SIDE ROAD CHAI	HAGE 52m OFFSE	ET 6m EAS	T					GROU	ND LEVEL
20	Desc	ription of Stratu	m	Depth	Sample 123 Ke		c. d	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Details
British Gei	logical Survey		British G	eological Sur	KJ SP	5.	1		-	Geological Survi 19 = 19	
21	-				В	-					
- 22	Dense to very dark grey-brow fine to medium	m									
	with some find gravel size st				SP	6.1		•		N = 50 for 230mm	
23	-				В	7.6	G:	rading	GP		
· •	-				SP	-			1	N = 50 for 50mm	22.9.73 3H. Dry Casing 23.5m 24.9.73 BH. Dry
24				•	В	9.3	3			1	
British Ge	laning Sunner		Gritish C	- 24,8					SF/	Geological Sum	*
25	_ Medium dense d very silty fin	+ +	n CLAY parting		- KJ SP	25. 37.			CL	N = 16	WE. (Slight) 25.0m
26			· · ·	25.5							
27	Dense to very dark grey-brow well graded (with some Sal	eravel.		1	SP B	-	G	rading	GP	N = 34	WE. 26.C.a WL. 25.Om (15mins.) 24.S.75 S.L. 26.1m Casing - 26.0m 25.9.73 SiL. 25.0n
21	with some SAL slight CLAY										
28					SP	-				# = 50 for 200mm	
					B	-					
	logical Survey - Saturated		British G	ed ogical Sun	В	-			Drillish	N = 50 for 240mm	25.9.73 SML. 28.20 Casing - 29.0m 26.9.73 SML 24.0m
30	STRENGTH	TEST RESU	JLTS								
	Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. (kN/r	Stress n2)	Col (kN	hesion !/m2)	Ø		Remarks
×.											
British Geo	ingical Survey	·	Rritish G	eological Sup						Geological Surv	2V
	COMPACTIO	ON AND OT	HER TEST R	ESULT	S		1		<u> </u>		
	Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R	SO3 gm/litro	рН	Re	marks or other tests
	25.0	-	-	-	-	-	-	NII	7.0	water sampl	le.
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	Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	С.в.	R. SO3 gm/litre	рН	Rem	arks or other tests

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•		BOREHOL	E DATA SHE	ET No	1 OF	<u> </u>	5D	725	SEI	134 B.H. No		
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	LOCATION	MAIN ROUTE CHA SIDE ROAD CHAT	INAGE 2710m (NAGE 109m CFI	OFFSET 44m FSET 9m EA	WEST ST		· 7	834	238		D LEVEL	
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	- See Sheet No. 2 -	2										
10	STRENGTH	TEST RESI										
		Bulk Dens'y (kg/m3)	Dry Dens'y	M.C.	Comp.	Stress	Col	hesior:				
	Depth of Sample		(kg/m3)	(%)	(kN/	m2}	(kN	(/m2)	Ø		Remarks	
	G.L 0.45	-	-	25.5	-		-		-	Peaty topso		
~	1.50 - 1.95	-	-	16.2	-		-		-	Sand and gr	avel	
	4.50 - 4.95	-	-	9.5	-		-		-	Sand and gr	avel	
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	Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R	SO3 gm/titre	рН	Ren	narks or other te	sts
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Description of Stratum Depth Sample Differy M.C. LUP/P/P Core Recy Clast'n N Value Medias dense dark brows sandy STL7. Beooling Stratum Basic Stratum Sample Stratum M.C. LUP/P/P Core Recy Clast'n N Value 12 Soft dark gray-brown straved 12.0 N 17.0 N - 17 N 17.0 13 Gark gray-brown straved 12.0 N 12.0 N 17.0 N - 17 14 Soft dark gray-brown straved 16.0 SP B 28.9 N - 5 16.0 16 Danse to very danse dark gray-brown straved 16.0 SP B 5.9 3.0 Grading 07 16 Dense to very danse Str E SP D 10.5 N - 50 17.0 17 mady GBATE. Coreational ly atily with a slightly clays blacker. Descriptional ly atily with a slightly clays blacker. Descriptional ly atily for the slight Depth Div Dry Depth M (Kg/m3) MC. Comp. Stress (KM/m3) Cohord Core Stress 0 13.1 19 - - 26.1 - 26	
LOCATION MAIN ROLF CHAINAGE 2710a OF 357 446 1937 Description of Stratum Depth Barrow (C. LUPUP) Clear's N Value dark toron andy SILT. Becoming Sturked towards the base. 12 Soft Soft Garge-broom varwed Soft Garge-broom varwed Soft Garge-broom sandy GMTRL, Occasional Layers of alightly vitb a alightly vitb a alightly vitb a alightly thay vibder. Occasional Layers of ality fine to medias SMD. STRENGTH TEST RESULTS COMPACTION AND OTHER TEST RESULTS COMPACTION AND CHARGE COMPACTION COMPACTION AND CHARGE COMPACTION CO	?6
Description of Stratum Depth Sample Sample Core Recy Core Recy	D LEVEL
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tite base. 12.0 XJ 27.8 Soft dark gray-brown wr.red claysy SIL7/ silty CLAT. 12.0 XJ 27.8 Imme to very dense dark gray-brown sandy ORATEL Occasional layers of silty fine to medium SARD. 16.0 SP B 28.9 N - 5 Imme to very dense dark gray-brown sandy ORATEL Occasional layers of silty fine to medium SARD. 16.0 SP B 28.9 N - 44 STRENGTH TEST RESULTS STRENGTH TEST RESULTS Imme to serve brown sandy CRATEL Depth of Sample State Camposity (kg/m2) MC. Camp. Strest (kg/m2) Camp. Strest (kg/m2) Compton (kg/m2) 0 R Depth of Sample Cample Camp. Strest Camp. Strest (kg/m2) Compton (kg/m2) 0 R COMPACTION AND OTHER TEST RESULTS Depth OTHER TEST RESULTS Depth OTHER TEST RESULTS Depth OTHER TEST RESULTS	
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Depth of Sample Bulk Dens'y (kg/m3) Dry Dens'y (kg/m3) M.C. (%) Comp. Stres: (kN/m2) Cohesion (kN/m2) Ø R 12.20 - 12.65 - - 28.1 - 26 24° Quick S.B. Image: Single state st	
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<pre>sady SILT sady SILT vith fire partings of soft CLAY. Loose dark gray-brown SILT with fire partings of soft CLAY. - baturated / - baturat</pre>	Loope largened			- 2.5							
with fire partings of soft CLAY. 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.6 Grading ML ML 3.6 Grading ML 3.6 Grading ML 3.6 Grading ML 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 <td< td=""><td>-</td><td>grey</td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td>S.O. 3.0m</td></td<>	-	grey				-					S.O. 3.0m
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of soft CLAY,	1.5	in.10	- Dritich (an Aniral Qu	周期 1			Grading	ML	ch (f oninairal Surva	
- Saturated 6.0 KJ - 29,4.74 SW Very danse 134.2 30,7 34.2 1 30,7 Layered sid brown/dark grey-brown/ 50 50 50 50 50 with gray signed SP - 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50		168	Dimonie	roological out		- 31	•4				27.4.74 HL Casing 5.0m
- Saturated 6.0 KJ 34.2 Very danse Jayred 30,7 Jayred SU aid grown/dark grey-brown/ sid grown/dark grey-brown/ SP - SU sid grown sid grown SP - SU <td></td> <td></td> <td></td> <td></td> <td></td> <td>. .</td> <td>. </td> <td></td> <td></td> <td></td> <td>29.4.74 SWL</td>						. .	.				29.4.74 SWL
Very danse Jayered U4 30,7 JJ SU	- Saturated			- 6.0	1111		.2				
mid brown/dark grey-brown/ mid grey SU SU mid grey slightly silty SAND, SP - SU with fine to medium gravel size stones, SP - - SU - with fine to medium gravel size stones, SP - - SP - - SP - - Consisting 8, 1 some lenges of reary silty gravelly SAND, - - - - Consisting 8, 1 - - Consisting 8, 1 - - - - - - - Consisting 8, 1 - - - Consisting 8, 1 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -					7						
alightly silty fine to medium SAND. B 12.9 Grading SP for 200mm with fine to medium gravel size stones. SS for 200mm B SP for 200mm 29,4.74 BR size stones. SS SS for 200mm 29,4.74 BR Cosing 8, Th 20,4.74 BR very silty gravely SAND. B SP - alight of P 200mm STRENGTH TEST RESULTS Built Dens'Y M.C. Comp. Stress Cohesion 0 Remarks 4.5 - 4.9 - - 29.5 - 7 33 ^o Outlek S, B, 6.1 - 6.5 - - 30.7 - 13 22 ^o Outlek S, B, Index Suma Index Suma Index Suma Index Suma Index Suma Index Suma Index Suma Index Suma Index Suma Index Suma Index Suma Index Suma Index Suma Index Density M.C. Index Suma Index Suma Index Suma Index Suma Index Density M.C. Index Suma Index Suma Index Suma	•	grey_browa/					-		SU		
If the to medium SAND, with fine to medium gravel sp - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -							•			N = 50 for 200mm	
size stones. Some lenses of 29,4,74 BR. very silty gravelly SAND. Britch Ge uptal Surger SP - - 30,4,74 BR. Stream of very silty gravelly SAND. Britch Ge uptal Surger SP - - - 30,4,74 BR. STRENGTH TEST RESULTS Depth 21 Sample Buik Dons'y (kg/m3) Dry Dens'y (kg/m3) M.C. (kN/m2) Control, Stress (cohesion (kN/m2)) 0 Remarks 4-5 - 4-9 - - 29,5 - 7 33 ^o Ouiek S, B, 6-1 - 6-5 - - 30.7 - 13 22 ^o Ouiek S, B, Indext Surger Arrow (kg/m3) Remarks - - - - 13 22 ^o Ouiek S, B, - - - - - 13 22 ^o Ouiek S, B, - - - - - - - - 14 - - - - - - - - - - - - - - - - - - -		SAND.	· ·					Grading	SF		
Some lenses of very silty gravely SAND. Britsh Generata Surget Britsh Generata Surget Britsh Generata Surget Britsh Generata Surget Brits		dium gravel			В	-				for 225mm	20 4 74 100
Very silty gravelly SAND. English Georgical Surger SP Image: SP<											Casing 8,1m
B B T1.6 Grading GF for 210an STRENGTH TEST RESULTS Depth of Sample Buik Done'y (kg/m3) Dry Dens'y (kg/m3) M.C. (%) Comp. Stress (kN/m2) Cohesion (kN/m2) Ø Remarks 4.5 - 4.9 - - 29.5 - 7 33° Outlek S, B, 6.1 - 6.5 - - 30.7 - 13 22° Quick S, B, Compaction Remarks A string colspan="4">Comp. Stress Cohesion Quick S, B, Cohesion Quick S, B, Cohesion A string cohesion Quick S, B, Cohesion Cohesion A string cohesion A	very silty grav	elly SAND.									Jos + + + + - 521,
KJ KJ STRENGTH TEST RESULTS Depth of Semple Buik Dons'y (kg/m3)* Dry Dens'y (kg/m3)* M.C. (%) Comp. Stress (kN/m2)* Ø Remarks 4.5 - 4.9 - - 29.5 - 7 33° Outlek S, B, 6.1 - 6.5 - - 30.7 - 13 22° Quiek S, B, 1 - - 30.7 - 13 22° Quiek S, B, 1 - - 30.7 - 13 22° Quiek S, B, 1 - - - 30.7 - 13 - 1 - - - - - - - 1 - - - - - - - 1 - - - - - - - 1 - - - - - - - 1 - - - - - - - 1 - - - - - - - 1 - - - - - - - 1 <	logical Survey		British ()eological Sur	SP		.		Britis	sh (ec iv g i e 50 i ve	
STRENGTH TEST RESULTS Depth of Sample Buik Dons'y (kg/m3) Dry Dens'y (kg/m3) M.C. (%) Comp. Stress (kN/m2) Cohesion (kN/m2) Ø Remarks 4.5 - 4.9 - - 29.5 - 7 33° Outlek S. B. 6.1 - 6.5 - - 30.7 - 13 22° Outlek S. B.						11	.6 0	rading	GP	for 210mm	
4.5 - 4.9 - - 29.5 - 7 33 ⁰ Outlek S, B, 6.1 - 6.5 - - 30.7 - 13 22 ⁰ Quick S, B, 1 13 22 ⁰ Quick S, B, - - - - 1 13 22 ⁰ Quick S, B, - - - - 1 1 13 22 ⁰ Quick S, B, - - - 1 1 13 22 ⁰ Quick S, B, - - - 1 1 13 22 ⁰ Quick S, B, - - - - 1 1 13 13 13 13 - - - 1 1 13 13 13 13 13 14 - - - - - - - - - - - - - - - - - - - - - - - - - - - -	STRENGTH	TEST RESI	ULTS						<u></u>		
4.5 - 4.9 - - 29.5 - 7 33 ⁰ Outlek S, B, 6.1 - 6.5 - - 30.7 - 13 22 ⁰ Outlek S, B, 1 13 22 ⁰ Outlek S, B, - - - - 1 13 22 ⁰ Outlek S, B, - - - - 1 13 22 ⁰ Outlek S, B, - - - - - 1 13 13 22 ⁰ Outlek S, B, - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -		Buik Dens'y (kg/m3)	Dry Dens'y (kg/m3)		Comp.	Stress n2)	C (k	hesion N/m2)	ø		Remarks
Indical Summer Print Print<	4.5 - 4.9	1		29.5	-		7		33 ⁰	Quick S. B.	
COMPACTION AND OTHER TEST RESULTS Depth of Sample Compaction Dry Dens'y M.C. (kg/m3) (%) S.G. Voids C.B.R. gm/litre pH Remarks or other	6.1 - 6.5	-	-	30.7	-		13	}	22 ⁰	Quick S.B.	
COMPACTION AND OTHER TEST RESULTS Depth of Sample Compaction Dry Dens'y M.C. (kg/m3) (%) S.G. Voids C.B.R. gm/litre pH Remarks or other					ļ						
COMPACTION AND OTHER TEST RESULTS Depth of Sample Compaction Dry Dens'y M.C. (kg/m3) (%) S.G. Voids C.B.R. gm/litre pH Remarks or other							[
COMPACTION AND OTHER TEST RESULTS Depth of Sample Compaction Dry Dens'y M.C. (kg/m3) (%) S.G. Voids C.B.R. gm/litre pH Remarks or other							 				
COMPACTION AND OTHER TEST RESULTS Depth of Sample Compaction Dry Dens'y M.C. (kg/m3) (%) S.G. Voids C.B.R. gm/litre pH Remarks or other											
COMPACTION AND OTHER TEST RESULTS Depth of Sample Compaction Dry Dens'y M.C. (kg/m3) (%) S.G. Voids C.B.R. gm/litre pH Remarks or other	·····						┣				
Depth of Sample Compaction Dry Dens'y M.C. (%) S.G. Air Voids C.B.R. SO3 pH Remarks or other	ogical Suney		Riiish (Yeological Suu			<u> </u>			sh Geological Surve	
Depth of Sample Compaction Dry Dens'y M.C. (kg/m3) M.C. (%) S.G. Air Voids C.B.R. SO3 pH Remarks or other											
(kg/m3) (%) S.G. Voids C.B.H. gm/litre PH Remarks or other	COMPACIFIC	TO CINANU			T	Air		SO3	· · · · · · · · · · · · · · · · · · · ·		
Trace 5.3 Water Sample		Compacting			5.6.		IC.8.	n. gm/litre	рН	Ren	narks or other t
	Depth of Sample		(kg/m3)	(%}		10103	<u> </u>			164	-

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	A.56 DIVERSIO CHAINAGE 2747	n – PASLINGDE n OFFSET 48m	N TO ACCRI	NGTON	C	\mathcal{O}	120	2/13		o
LUCATION	scription of S*rat			Samp	le L		LL/PL/P			ND LEVEL22
0	cription of S rat		Depth	123 K	ey M	I.C.	Core Rec'	γ (Ciass		Water & Casing
eological Survey See Sheet No.	1	Brilish	1 Geological Sun					Britis	sh Geological Survey	
1			11.1					_		
Loose to medi					SP	= 0	Grading	GW	N = 50 for 240mm	30.4.74 BH. 1D
dark grey-bro										Casing 11.4m 1.5.74 BH. 'Dry
2 silty gravell with a soft c	-									Slight WE. 11.4
					SP 2	1.0	Grading	SP	N = 14	not sealed
3_										
Loose mid bro			13.3							
fine to mediu	ma SAND			s s	в	_	Grading	SU	¥-5	
-Saturated.	av have			і кл		9 0		ML	1 1	
slightly clay				RII v	1					
sandy SILT.			14.7							•
Medium dense		Ĥinsh	r Geological Sun					Britis	1	
dark grey-bro				SP SP	×₿	- G	Frading	SF	N = 20	
slightly clay very silty fi	• • •	CA IT		n						
- with thin ban										
	•		•							
				SP	• в <u> </u>	-			R = 13	1.5.74 S.L. 17. Casing 17.1
Medium dense										2.5.74 SWL. 10.
. dark grey-bro										
silty sandy	GRAVEL.		ľ					<u> </u>		Not sealed
ł				SP	' ·	- _			¥ = 12	
• ·	•			B		- G	rading	GW		
'F										-
enogical Survey		British	i Geological Sun						sh (leological Surve	
-Saturated				SP	· .	-			N = 10	
	TECT DECI									
STRENGTH Depth of Sample	Butk Dens'y (kg/m3)		M.C.	Comp.	Stress	Co	hesion			
Deput of Sample	(kg/m3}	Dry Dens'y (kg/m3)	(%)	(kN/	m2)	<u> (k</u> N	hesion (/m2)	Ø		Remarks
				ļ		ļ				
		[
						<u> </u>				
		[<u> </u>		<u> </u>				
				 		 				
				L		L				
e Indical Sunter		Dritch	Geological Sup						sh Geological Survey	
				1				<u>1111</u>		
COMPACTIC	N AND OT	HER TEST	RESULT	S		1				
Depth of Sample	Compaction	Dry Dens'y	M.C.	S.G.	Air		SO3			
		(kg/m3)	(%)	0.0.	Voids	C.8.R	gm/litre	Hq	Rem	harks or other tests
14.2	-	-		-	-		NII	6.6	Water sampl	9
1		1	1			1				
				1		<u> </u>				

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مريا ويعيان المواكلية وليوارين والمركزين والمعاطية المقاربين معيق سباط شعاد بالمعاد

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		LANCAS	SHIRE COL	JNTY CO	DUNCIL					JOS N	o
		BOREHOL	LE DATA SHI	EET No ³	OF	\leq	D.	77<		2B.H. N	n
,C	SCHEME	A.56 DIVERSI	ION - HASLINGI	DEN TO ACCR	RINGTON	\mathcal{L}	\mathcal{O}	120	<u>//</u>	SSDEPTH	30,6
	LOCATION	CHAINAGE 274	7m OFFSET 48	Bm VEST					•		ND LEVEL .222.1
20	Des	cription of Strat	um	Depth	Sample 123 Key	- M.(c. 6	LL/PL/P1 Core Rec'y	Class'n	N Value	Water & Casing Detail
Eritish Geo	See Si Togical Survey	heet No. 2		20.1		1			Britieh	Geological Survey	
Uniteri oct	Loose		Dinidi	i Genindirai onis			Ì		Linuari	ocorogical outroj	
21	becoming medium	a dense			B B	. ·	-	-			
	dark grey-brown	1									
	layered silty gravelly	SAND			SP B	16		rading	SU	N = 5	
· 22	and silty sandy										
											2.5.74 SWL, 16.5m Casing 22.3m
	Occasional lens gravelly silty				SP	B 12,	.0			N - 25	3.5.74 SWL. 11.8m
23		omitaj: oraci ;									
24	<u> </u>										
	ł	•			SP 1	B	-			N = 23	
D.X.L.A.			7 .11.1						To the la		-
British Geo 25	ogical Survey	•	DIIISI	1 Geological Sun						Geological Surve	
						ł					3.5.74 SWL. 15.6m
					B B	14		ading	GV	N = 50 for 150mm	Casing 25.5m
26						-					6.5.74 SWL. 12.1n Not sealed.
		× ,									stronger W.E. at 25.7m
27	<u>.</u>			27.0							
-/						}					
	Medium dense dark grey-brown				SP	18.	5		SU/SF	N - 27	
28	silty fine to m										
	; ·				SP	17.	2			N - 43	
29											
British Gei	logical Survey		. 611(51	i Geological Sun						Geological Surve	
30	-								- 		· · · · · · · · · · · · · · · · · · ·
	STRENGTH										
	Depth of Sample	Buik Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. St {kN/m2	ress	Coh (kN	mesion /m2)	Ø		Remarks
					-						
1											
					1						H.,,,,
											· · · · · · · · · · · · · · · · · · ·
RUELL A				A. J. J. J. A.						A	
emish Gel	logical Survey		HIIR	i Geological Suni					Britsh	Geological Survey	
· · ·	COMPACTIC			PEOLU T	1						
	COMPACTIC		Dry Dens'y	RESULT M.C.	1	Air		SO3		·	
	Depth of Sample	Compaction	(kg/m3)	(%)	S.G. V	oids	C.B.R.	gm/litre	рН	Ren	narks or other tests
	· · · · · · · · · · · · · · · · · · ·										
								·			
	GENERAL F	REMARKS		Formerly h	porebole N	о. НА	25/1				CBJA 16272 TayPt

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LOCATION		E DATA SHEI Ion - Haslingd 47m CFPset 48			••••			Γ		
	cription of Strate		Depth	Sample	M.C	LL/PL Core R	/P1 Icla	เรร'ก	N Value	WD LEVEL
See Sheet No.		- British Geo		123 Ke	4	Core P		sh Gei		watero
			30.6		ĺ					6.5.74 гл
						·				Casing 30. 7.5.74
										S.W.L. 11.
-										
ical Survey		British Geo	olo l ical Surve					ah Co	ological Survey	
•										
- *.										
	c 🔸									
-										
•										
								-		······
-										
gical Survey		British Geo	ological Surve				Briti	sh Geo	ological Survey	
OTDEMOTU	TEAT DEAL									
STRENGTH Depth of Sample	IESI RESU Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. S (kN/m	tress	Cohesion (kN/m2)	Ø	T		
	(Kg/m3/	(Kg/m3)	(%)	(kN/m	2)	(kN/m2)		+	-	Remarks
					i					
				ļ						
			····· •					-		····
nical Survey		British Gad	ological Surve				Briti	shGed	ological Survey	
COMPACTIC	ON AND OTH				Air /oids	B.R. SO	<u> </u>			
Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	AII 1 -	.B.R. gm/lit	pH			harks or other

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GENERAL REMARKS Formerly borehole No. HA 25/1

CB7A 16272 Tay.

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		······	WEST BA	T c		783				ND LEVEL22
Desc	ription of Stratu	m	Depth	Samp 1231 K	ey M	с. _с	1./FL/PI ore Rec'y	Class'r	N Value	Water & Casin
Loose Mottled orange/ olayey sandy S	TOPSOIL grey-bròwn ILT	Brilis	h Geillogical St	и _ И4 _ КЛ	1-1-			Hritis ML	h Geological Sun	Started 4.12.7
-			1.7	U4	26.	6				
_Soft dark grey-brown silty very sand				L KJ	<u>17.</u> в 15.					
with plenty of gravel size sto	-			a Sr		2			N = 13	
				\$ SP	(11	.7)			N = 15	, ,
				B	20.	63	0/18/12	CL		
ological Survey		Britis	h Ge <mark>r</mark> logical Si 5. 3	KJ	11.			<u> </u>	biGeningical Sun	-
Medium dense mid brown silty fine to ma	adium cium			SP SP	B 10,	4 G	rading	SU	N = 21	
Small pockets of	•			SP	B 3.	3			N = 23	4.12.73 BH. 'Da Casing 6.5: 5.12.73 BH. 'Da
-										
	. .									· · · · · · · · · · · · · · · · · · ·
- -										
See Sheet No. 2			hGo 9,5 St					Britis	h Geological Surv	
STRENGTH			M.C.	Comp	Stress	Cob	esion			
Depth of Sample	Bulk Dens'y (kg/m3) -	Dry Dens'y (kg/m3)	M.C. (%)	(kN/	Stress m²)	(kN	esion /m2}	0		Remarks
				ļ 						
nogical Survey		Britis	i Geological Si					D III	h Geological Gun	
COMPACTIO	N AND OT			rs						
Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO3 gm/titre	рН	Re	marks or other tests

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	* -	BOREHOL	E DATA SHE	ET No?	2 OF	2.	17	7/5	-112	a B.H. No	5616/1
*		A.56 DIVERSION COMMERCE STREE CHAINAGE 2599m	T OVERBRIDGE.	WEST BANK	IGTON SEAT		UL	235	2/.12		19 ND LEVEL
		ription of Stratu		Depth	Sampie	M.0	c. L	L/PL/Pi ore Rec'y	Class'n	N Value	Water & Casing
10 British Geo	Medium dense be dark grey-brown clayey silty		British G	ieological Surv	SP I	_		ading	sc British	N 👷 16 Geological Survey	-
11	fine to medium	SAND .			KJ	17.					
	Occasional grave	and cobbles	••		SP I	18,	.3 Gr	ading	SU	N = 4	-
- 12			•	- 12.8							WR. 12.8m rose to 12.6m (
13	mid grey-brown			12,0	SP 1	21,	,5			N = 3	
14	slightly clayey _fine to medium	-						- -	· 		
British G y f	ogical Survey		British G	eological Surv	SP I	25.	.9 Gr	ading	. sv Brilish	N = 5 Geological Survey	
16				15.9	KJ	15	.6				
17	Firm friable dark grey-brown silty very sandy with abundant go	y TLAY			SP I	11.	.7 27	/15/12	CL	N = 50 for 200mm	5.12.73 SWL 11. Casing 16.2m <u>6.12.73 Sol. 11</u>
18					SP					N = 50	
18	. Soft very broken and	very weather	đ	18.2	SP					N = 50 N = 50	
19	light brown MU			19.0						for 45mm	6.12.73 Casing 18.5m
British Geo 20	ogical Survey	• •	British (ieological Survi						Geological Survey	SWL. 13.0m OWC.
	STRENGTH										
	Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y {kg/m3}	M.C. (%)	Comp. 9 (kN/m	tress 2}	Cohi (kN/	sion m ²)	0	.	Remarks
	· · ·					·					
	•				 						
British Geol	ogical Survey		Dritiah (leological Guive					British	Goological Survey	
	COMPACTIC		UED TEST	DECLUT	L						
	Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	60	Air Voids	C.B.R.	SO3 gm/litre	рН	Ren	marks or other tests
	11.0		-	-	-	*	-	NII	7.0	Water sample	•
								ļ			
									1		

Metric	No. 199	LANCAS	HIRE COU	NTY CO	UNCIL			,	JOB No	j
		BOREHOL	.E DATA SHE	ET No!		$\leq \Gamma$)725	≤ 1	1 - 08.H. No	66A
			N - HASLINGDEN			$\underline{\mathcal{I}}$	1120	<u> </u>	120 DEPTH	
			AINAGE 2563m INAGE 49m OFF			78	26 236	ີ 🖣		ND LEVEL
		cription of Strati			Sample 1 2 3 Key	M.C.	LL/PL/PI Core Rec'y	Class	n N Value	Water & Casing Deta
O British Geoli	TOPS	OIL -	Arrich G				Coremacy	Drifts	h Geological Survey	Started 25.6.75
unuan ocon	FILL Very loose dark pieces of broke	grey-brown sin brick, potte	ilty sand, wit	h 0.8	SP	19.5		Unio	N = 1	Uncased hole.
1	-Soft							+		
	mottled mid gre		a .		04	26.6	32/18/14	CI		
	silty sandy CL becoming very s				S KJ	26.9				
• 2					Ū4	16.3				25.6.75 SWL, 2.7m
	Hedium dense	<u> </u>	···· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··	2.7	KJ	19.3		so		26.6.75 SWL. 2.7m
. 3	dark grey-brown									
	clayey silty S with fine to me		ze stones.							WE. 3.4m (Slight)
. 4				4.1	SP	-	•		N = 14	20.6.75 SHL. 4.1m
				•••						20,0,0,7 5*L, 4,1m
British Geol	gical Survey		British G	eological Surve				Brilis	h Giological Survey	
							-			
	-						·			
				•.						
		• •								
									+	
	-									
										-
	È Ì									
British Geol	gical Survey		British G	eological Surve				Britisl	h Geological Survey	
	STRENGTH	TEST RESU	JLTS							
	Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. Str (kN/m2)	ess (Cohesion (kN/m²)	Ø		Remarks
	1.30 - 1.75	1970	1560	26.6	56		28	-	100 U.C.T.	<u> </u>
	2.30 - 2.70	2170	1860	16.3	41		20	-	100 U.C.T.	
					,					
									· · · · ·	
British Geoli	aical Survey		Dritiak A	eological Survey				Driffe	1 Geological Survey	
onuáli UEUN	uirai oniici		DIIIBII U	condirg on Ac		_		01113	i oculuyital Əllifti	
. *			L							

COMPACTIC	ON AND OT	HER TEST	RESULT	S.					
Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	\$.G.	Air Voids	C.B.R.	SO3 gm/litre	pН	Remarks or other tests

GENERAL REMARKS

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	Description of Strat	um	Depth	Samp	ie M	c 1 1	LL/FL/PI	Classie		ND LEVEL
O Open Hole t		British Ge		123 K	e)		Core Rec'y		e logical Survey	Started 29.8.7 110mm Ø casing
1 Weathered fine graine SANDSTONE.	a									29.8.75
2 With clay f	illed joints.	-								Casing • 0.6m 1.9.75
3	•									· ·
4										
lo r ical Survey		British Ge	ological Survey					British G	ellogical Survey	
							-			
6			-		-					
7					-					1.9.75 Casing : 0.6m 2.9.75
3 - -										
										2.9.75 Casing : 0.6m
olo <u>iral Suney</u> See Sheet N	. 2	British Ge	olo , ica 9, 5 19	24-91-02				British G	eological Survey	17.9.75 17.9.75 Casing : 9.6m 18.9.75
STRENGT	H TEST RES			T						
Depth of Samp	le Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C (%)	Comp. {kN/	Stress (m²)	Coh {kN	esion /m2}	Ø		Reinarks
									· · · · · · · · · · · · · · · · · · ·	
ological Survey		British G	ological Survey					British G	anlogical Survey	
COMPACT	ION AND OT	HER TEST I	RESULT	'S						
Depth of Samp		Dry Dens'y (kg/m3)	M.C. (%)	S .G.	Air Voids	C.B.R.	SO3 gm/litre	рН	Rei	marks or other test

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مىيىلىدىنى يەرىپىيە بىرىمىيە مەرىپىيە بىلەرمىيە بىلەرمىيە بىلەرمىيە يەرىپىيە بىلەرمىيە بىلەرمىيە بىلەر بىلەر يە بىلەر بەر بىلە بىلەرمىيە بەرمىيە بەرمىيە بىلەرمىيە بىلەر قەرىيە يەرىپىيە بىلەرمىيە بىلەر بىلەر بىلەر بىلەر بىلەر

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	LOCATION	CHAINAGE 261	TET OVERBRIDGE 7m OFFSET 10m	EAST			5102	•		GROU	ND LEVEL 213
10	Desc	cription of Strate	ini i	Depth	Sample	M.C	L C	L/PL/Pl pre Rec'y	Cłass'n	N Value	Water & Casing [
ritish Geo	Soft to hard very broken t	o broken		Geological Surv	And the second sec			-	Diffeh(eological Survey	80% Return of Flushing Water . (Reduced with dep
11	dark grey-gre (with ferrugi faintly bedde	nous staining					·	-12.5a			
. 12	 Bedding sensi Occasional ve Occasional bas 	bly horizontal rtical fractum	L								40% Raturn of Flushing Water.
13	light brown fine grained SANDSTONE.							5 - 14.5 1y 75%	a		Reducing to zero at 13.0m .
14	- -										
itish (190	ogical Survey		British	14.5 Geological Survi						Jeological Survey	18, 9, 75
		•									
	• 	* 4		-							
	• • 										
	• • •	•									
itish Geo	egical Survey	د .	British	Geolegical Surv						eological Survey	
	STRENGTH										
	Deptn of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. ((kN/r	Stress n2}	Cohe (kN/	m2)	Ø		Renaerks
ستو											
Í											
		-									·
tish Geo	onical Survey		British	Senionical Supe					British (eological Survey	· · · · · · · · · · · · · · · · · · ·
	COMPACTIC Depth of Sample	ON AND OT Compaction	HER TEST Dry Dens'y (kg/m3)	M.C.	80	Air Voids	C.B.R.	SO3 gm/litre	рН	Rer	narks or other tests
1											

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	IIILI JU		LANCAS	HIRE COUN	TY CO	DUNCI	IL.				JOB No	357
	्भ ज	•	BOREHOI	E DATA SHEE	T No	.1 OF	~	5	775	Flu	CB.H. No	о73в
	2	SCHEME	CHAIEAGE 2747	n - Haslingden 19 OFFSET 12m W	EST			780	0238			10.7 n ND LEVEL
			cription of Strat	um	Depth	Samp 123 K		.c	LL/PL/PI Core Rec'y		1	Water & Casing Detail
- - -	o British Geo 1	FILL Black ash, c gravel size	,	- British Ge				:2.6)	Core Rec y		¢eological Surve	Started 20.9.73
and the second second	2	Medium dense dark grey-bro sandy GRAVE			- 1.2	SE		.6 .5			N = 23	WE. 1.5= (Slight)
•	3	with a slight	tiy ciayey mat	rix .	-	S	P 10	.6	Grading	GC	₩ = 23	20.9.73 EH. 'Dry' Casing 3.05 21.9.73 EH. 'Dry'
•	4	- - -										
	British Ger	ogical Survey		British Ge	actogical Sur	s	P 13	.1	<u></u>	British	X - 29 Geological Surve	WE. 4.5m (Slight)
	6	Loose	<u>.</u>		5.6							•
	7	mid grey-brow layered sandy and very silty fi	, SILT				Р В 29,	.0	Grading	ML SF ČL	N = 7	
4	8		tings of CLA	£.		s	Р В 29,	.0		-	N - 9	
	9	-									-	21.9.73 BH. 'Dry'
	Brilish Ger	Very soft, br mid brown fine grained	oken, weather SANDSTONE.	e d, British Ge	9 .2 edogical Sur	S	P 13.	.6		British	Geològicai Xivi	Casing 9.0m 22.9.73 BH. 'Dry' 22.9.73 BL. 'Dry' Casing 10.0m 24.9.73 BL. 'Dry'
	10	STRENGTH		JLTS								
		Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y {kg/m3}	M.C. (%)	Comp. {kN/	Stress m2)	C(k	ohesion N/m²}	0		Remarks
									1			
ı i												
1												
1												
	British Gei	logical Supey	-	Riitige Ge	entogical Sur	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				Britsh	<u>Geological Surve</u>	
) : 1 1	289242-111	COMPACTIC	DN AND OT	HER TEST RI	ESULT	S		<u> </u>				
]		Depth of Saniple	7	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	С.З.	R. SO3 gm/litre	рH	Rem	narks or other tests
1					· · · · · · · · · · · ·							
					•							
						L	<u> </u>	1				

	LOCATION	CHAINAGE 2747	/m OFFSET 12m	1 WEST						GROU	ND LEVEL?
10	Des	cription of Strat	um	Depth	San 123	npte Key	M.C.	LL/PL/P Core Rec'	l Class'n	T	Water & Casir
10 Iritish Geological	See Sheet No. Boulder or b		- British Geolo	igical Survey 10,7		KJ SP	:		British Geolog	al Suivey N = 50 for 75mm	24.9.75 Casing 10.7m
11	 •	-									S. W. L. 6. 01 0
									_		
	-										
	· · ·		•								
ritish Geological	Survey		British Geolo	niral Survey					Rritish Geolon	cal Survey	
				gion paroj					Diffail Coolog		
	- 	•									
	• •••										
		~									
	- - -										
ritish Geologica	Survey		British Geolo	gical Survey					Britsh Geolog	cal Survey	
	STRENGTH	TEST RESU	JLTS		<u>Liederte</u>		<u></u>				
	Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m ³)	M.C (%)	Com (k	p.Stres N/m2)		ohesion (N/m²)	Ø		Remarks
1					 						
											·····
										· · · · · · · · · · · · · · · · · · ·	······································
ritish Geologica	Survey		British Geolo	jical Survey					British Gellog	ical Sunroy	
	COMPACTIC	N AND OT	HER TEST	RESULT	S						
	Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	- Ai Voi	r ds C.B	.R. SO3 gm/litre	рН	Ren	narks or other te
	!			1	t		1				

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		LANCAS	HIRE COU	NTY CO	DUNCI	L				JOB No	5. 367
	- ·	BOREHOU	E DATA SHE	ET No	1 OF.	2 <	n	77<	=1	B.H. N	o
4.		A.56 DIVERSIO	E DATA SHE	TO ACCRI	NGTON	\sim	$\Sigma $	120	x/		18 .
	LOCATION	MAIN ROUTE CH	AINAGE 2685m INAGE 91m OFF	OFFSET 77	a JEST			7840	-		ND LEVEL 239.3
		cription of Strat		Depth	Sampl	e M	.c.	LL/PL/PI Core Rec'			Water & Casing Datai
0 Deiliais Casal	1	OPSOIL	nuitat e		123 Ke	<u>у</u>		Core Rec			Started 18.9.73
British Geol	rgital ouricy		unnan a	0,25	- U4		.8		Britis	h Geological Survey	
1	[•			HIK	19	••				
•											
	ļ										
	Dense to ve	ry dense			U4	(8,	4)	Grading	GW		
2	aid brown	ayey, silty,									
	wel) graded				ΠIW	12	-4		SW		
. 3	with many f										
	nedium grav	el size stone:	5.	Í							
					SP			G		N = 50 for 75mm	
4	0cc.sional	cobbies,				- 10	.3	Grading	CF		
British Geo	egical Survey		British G	eological Surv				•	Diffis	h Geological Survey	
5	-				SP		-+-			N = 42	
. •											
6	-				В	(%	6)		1		
		•		1	SP	11				N = 46	
7	-										
					9	(9.	5)				
					SP	8.	8			¥ - 21	
8	-					-					
						8.	1	Grading	S	P	
9	<u> </u>					-					
British Geo	hi si Simer		- Rilleh S	9.3		26	.0		Driffe	h Geological Survey	
Difficit Coo	Sce Sheet N		DHIIBH G	room girar oan	S₽	B 27	.6 0	Grading	SF	N = 18	
~ 10											
	STRENGTH										
	Depth of Sample	Bulk Dens'y (kg/m ³⁾	Dry Dens'y {kg/m3}	M.C. (%)	Comp.: (kN/r	Stress n2)	Co {ki	hesion N/m²)	Ø		Remarks
	G.L 0.45	-	•	17.8	-		-		-	Topsoil and	friable clr.y
· · · · · ·	1.50 - 1.95	-	- ·	(8.4)	-		-		-	Sand and gr	avel
					1						· · · · · · · · · · · · · · · · · · ·
					1						
.										· · ·	•
	·		- 						5.7		
British Geo	poical Survey		British	ieological Surv			 		Briti	h Geological Survey	
ant 1. ann:					<u> </u>						
	COMPACTIC	IN AND OT			1				r		
	Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.F	ginvittre	pН	Ren	narks or other tests
	9.7	-	-	-	-		-	Slight trace	7.0	Water sample	P
	GENERAL F	REMARKS									C87A 16272 TayP

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- I a				UNCIL				JOB No	o
	BOREHOLE	DATA SHEET	Г No. <u>.</u> ?	OF?	\leq	770	SEL	⋜9^{₿.Н. №}	o 69 I1
1	A.56 DIVERSIO	N - HASLINGDE	OPPOP	RINGTON	\bigcirc				
LOCATION	MAIN ROUTE CH SIDE ROAD CHA	ALRAGE 20851 INAGE 912 OFF	SET 26m	VEST				GROU	ND LEVEL 23
Des	scription of Stratum	1	Depth	Sample 123 Key	м.с.	LL/PL/P Core Rec'	Class'r Y	N. Value	Woter & Casing
mid brown ver	ry silty fine SA	British Geo und .	igical Survi			_		Giological Survey	18.9.73 BF. 'Dr Casing 10.5m 19.9.73 SML. 9.
1			11.0	SP	-			N = 4	
Medium dense dark grey-bro varved cleyey				B	23,3	Grading	ML		
and sandy SI with CLAY p 3				SP	30.0	Grading	NL	N = 15	
				B	30.6		-		
	1	British Geo	Laisal Oras	SP	29.3			N = 13	
eological Survey	•••	DINSILOU	uyu ou w	B	31.4		ML/CH	Geological Survey	
Medium to ver	y dense		16.0	SP	13.1			N = 16	
dark grey-bro alightly clay silty to very SAND with gra	ey.			B KJ SP	- 16,1 9,8	Grading	SP	¥ = 50	- -
Hard broken,	light brown Boulder?		18.0	B SP	10.3			for 120mm N = 50 for 75mm	19.9.73 Casing 18.0m SWL. 9.3m 0.W.C
f			18.8		1				SWL, 9,300 0,W,C
edogical Survey		British Geo	gical Sunv				B	Geological Survey	
edogical Survey			igical Surv				British	Geological Survey	
edogical Survey STRENGTH	ITEST RESUL	TS		Comp. Stu	ress	Cohesion		Geological Survey	
ecogical Survey STRENGTH Depth of Semple	TEST RESUL Buik Dens'y (kg/m3)	TS Dry Dens'y (kg/m3)	M.C. (%)	Comp. Sti (kN/m ²	ress }	Cohesion (kN/m ²)	0		Remarks
STRENGTH Depth of Semple 11.0 - 12.50	ITEST RESUL	TS Dry Dens'y {kg/m3}	M.C. (%) 23.3	Comp. Sti (kN/m2	ress	(kN/m2) 0	0 35°	Carick S. B.	Remarks
ecogical Survey STRENGTH Depth of Semple	TEST RESUL Buik Dens'y (kg/m3)	TS Dry Dens'y {kg/m3}	M.C. (%)		ess	(kN/m2)	0		Remarks
STRENGTH Depth of Semple $11_{-0} = 12.50$ $14_{-30} = 15_{-80}$	TEST RESUL Buik Dens'y (kg/m3)	TS Dry Dens'y {kg/m3}	M.C. (%) 23.3	-	ess	(kN/m2) 0	0 35°	Quick S. B.	Remarks
STRENGTH Depth of Semple $11_{-0} = 12.50$ $14_{-30} = 15_{-80}$	TEST RESUL Buik Dens'y (kg/m3)	TS Dry Dens'y (kg/m3) -	M.C. (%) 23.3	-	ess	(kN/m2) 0	0 35° 23°	Quick S. B.	
ecogical Survey STRENGTH Depth of Sample 11.0 - 12.50 14.30 - 15.80	TEST RESUL Buik Dens'y (kg/m3) -	TS Dry Dens'y (kg/m3) -	M.C. (%) 23.3 29.3	-	(ess	(kN/m2) 0	0 35° 23°	Quick S. B. Quick S. B.	
STRENGTH Depth of Sample 11.0 - 12.50 14.30 - 15.80	TEST RESUL Buik Dens'y (kg/m3) - -	TS Dry Dens'y (kg/m3) - -	M.C. (%) 23.3 29.3 logical Surve	- - - - -		(kN/m2) 0 41	0 35° 23°	Quick S. B. Quick S. B.	
ecogical Survey STRENGTH Depth of Sample 11.0 - 12.50 14.30 - 15.80	I TEST RESUL Buik Dens'y (kg/m3) - - - - - - - - - - - - - - - - - - -	TS Dry Dens'y (kg/m3) -	M.C. (%) 23.3 29.3	- - - - - - - - - - - - - - - - - - -		(kN/m2) 0	0 35° 23°	Quick S. B. Quick S. B. Quick S. B.	

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				NIY CO					_ 1	JOB N	0. <u>27</u> 1
	SCHEME		LE DATA SHE							DEPT	0
	LOCATION	CHAINA E 262	EEP OVSRBRIDGS	EAST .	Sample			7			ND LEVEL
0 Dritiah Cas	FILL	scription of Strat		Depth	123 Ke	у		ore Rec'	/		Water & Casing [Started 21.11.75
British Geo	Limestone chi Cinders, black Medium hard to	kash.	British C	0.6			1	io 0.6m		sh Geological Survej	21, 11, 75 Bill UDr
1.	fairly intact	, slightly wea						.5m-2.1m 5% Record			Casing 0.67 22.11.75 SM. 0.
2	fine grained inclusions, B Joints vertics	edding sensibl	y horizontal.								-
	Soft broken we (stained dram SANDSTONE, Sor	ge -brown) fin	e grained	2,1							
3	Very soft to 1			2.9				.1 - 3.6 5% Recov			· · · · · · · · · · · · · · · · · · ·
	very broken to weathered (par		hered)							1	
4	_ zid green-grey sandy MUDSTON		nge-brown)					.6 - 5.1 5% Recov			
British Geo 5	Some signs of(sensibly hori	-	British (eological Surv	1					sh Geological Surve	
	Joints vertice and dipping 40		۰.		12.04		6	.1 - 6.6			
6	Some bands of Occasional bar thinly cross b	soft CLAY.	een-grey ained SANDSTON					5% Recov			00 41 7F
7			athed SkinDSTON	6.6							22.11.75 Casing 5.9m
8.	- -										
9	-										
British Geo	logical Survey		British C	eooogical Surv						sh Geological Surve	
10	STRENGTH	TEST RES	ULTS						_		<u>İ</u>
	Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. S (kN/n	itress 12)	Coh (kN/	esion m2)	Ø		Remarks
		· · · · ·		<u></u>							
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		,									
British Gei	logical Survey		Ritish	Geological Surv						sh Geological Surve	<u>.</u>
British Gei	Ingleal Survey		HER TEST F	RESULT	S					sh Geological Surve	· · · · · · · · · · · · · · · · · · ·
British Ged					80	Air Voids	C.B.R.	SO3 gm/litre	Britt pH		narks or other tests
British Gei	COMPACTIO	DN AND OT	HER TEST F	RESULT	80	Air Voids	C.B.R.	SO3 gm/litre			

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	1		MINE LUUI					2)	
		BOREHOL	LE DATA SHEI N = HASLINGDEN	ET No!	OF	$\leq r$	TIC	= lin	B.H. No	5	
	SCHEME	A.56 DIVERSIC	N - HASLINGDEN	TO ACCRT	NGTON 🔨	ノレ	125	_112	L DEPTH		
	LOCATION		n OFFSET 9m EA			783	9.237	5		ND LEVEL	
0		cription of Strat			Sample 123 Key	м.с.	LL/PL/PI Core Rec'y	Class'r		Water & Ca	
	FILL: Black cl			0.2				Delited	- Paalaaiaal Dumo	Started 9.10	0.75
British Ge	Soft light bro		ned, Dillail	oeu uyicai au				DIUS	h Geological Surve	11 () 12 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 () 14 ()	
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Dritiah Ca	ological Survey		Dritisk	Ge y logical Sy				Datie	h Geological Survi		
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Dritieh Ga	plogical Survey		Qritich	Gellogical Su	-			Driffe	n Geological Surv		
Unitari Ve	pinārai anisci		LIIIGII	ocenogical ou				Lilla	n peological outri		
	STRENGTH										
	Depth ct Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. Str (kN/m2)	ess (Cohesion kN/m2)	0		Remarks	
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COMPACTION	AND	OTHER	TEST	RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO3 gm/litre	рН	Ren.arks or other tests
									· · · · · · · · · · · · · · · · · · ·

Metric	4.4	LANCAS	HIRE COUN	тү со	UNCI	L					JOB No	5 <u>%</u> ¥
÷ .		BOREHOL	E DATA SHEE	Т No	1 OF	2 <	5	7	$\gamma <$	5li		
	000111011		- HASLINGDEN T IMAGE 2647m OF			.			20	~//		18.8. m
	LOCATION S	IDE POAD CHAT	NAGE 35m OFFSET	391 VES	T		78		23	77		ND LEVEL
0		ription of Strate	im .	Depth	Samp 123 K	le ey	M.C.	Co	/PL/PI re Rec'y	Class'	n N Value	Water & Casing Details
British G	Dark orange-bru with gravel siz	wm silty fine	to medium SAND				15.2			SF	isi Geological Sun	Started 24.7.75 200mm Ø casing.
	Firm dark orang CLAY with grave		silty very sand	0.6 y 0.8		14 LJ	17.3			CL SC		
1	Loose mid brown	slightly olay	yey silty SAND			F						
	Occasional grav	el size stone:	5.	1.5			11.7					
2	Firm									_		
	dark grey-brown silty sandy ver				10	P	12.0 14.6	28,	/16/12	CL	N = 23	ч. -
	-											*
,						Γ	12,5					
					s	P					N = 26	
4			s		B	-	12.4	<u> </u>	•			
5.3.1.5	Undian Janas J		B.B.L.	4.5								
British G 5	Hedium dense, d layered, slight	ly clayey	British (jepiogicai Si						611	ist Geological Sun	
	sandy SILT an clayey fine to									ML t		24.7.75 PH. 'Dry' Casing 5.2m
•	Partings of sof				S	РВ	17.6	Gre	ding	Śс Čн	N = 10	28.7.75 BH. 'Dry!
6	_Occasional ston			6.2	$\Box \parallel$	ŀ		<u> </u>				
	Stiff	•			H		11.9					
7	dark grey-brown silty sandy ver					Ļ						
· •	Occasional cobb	-		7.6	s	РВ	10.0		/16/12 ding	CL	N = 16	
	. Medium dense, l	yered	-	_] ′°°								
8	dark brown,	ilty fine SAN	D				14,2				N = 13	
	and mid brown	•			B		13.7	Gra	ding	SF SU		
. 9	fine to medium	SAND	Dulling of	9.0	$H_{\rm H}$	┝	27.5			5. 1		
. British G	See Sheet No. 2		British (seological St						BIII	ist Geological Sun	WE. 9.8m (Slight)
10		-						Ĺ				Ha,), our (Sirght)
	STRENGTH	·····										
	Depth of Sample	Buik Dens'y (kg/m3)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp {kN			Cohes (kN/n	n2)	Ø		Remarks
	0,60 - 0,80	2130	1815	17.3	82			41		-	38 U.C.T.	
	2.05 - 2.50	2180	. 1905	14.6	94			47		-	38 II.C.T.	· · · · · · · · · · · · · · · · · · ·
	3.60 - 4.05 7.20 - 7.65	2180	1900	14.8 11.8	10 19			54 97			38 U.C.T. 38 U.C.T.	
	7.20 - 7.65	2180	1955	11.3						- 37°	Quick S. B.	
	7.20 - 7.05	2100	(77)		- .			17	·····	- 1	walck 5, 6,	on matrix
							_					
British G	ological Survey		British (Beological Su		-				Rit	ish Geological Sun	
Dillan V	oraliegi Anitel			uyirdi di							on oconogical dull	
2014 - Levil 1	COMPACTIC		HER TEST R	ESHI T	S					<u> </u>		
	Depth of Sample	Compaction	Dry Dens'y	M.C.	5.G.	A	c.	B.R.	SO3	pН	Be	marks or other tests
			(kg/m3)	(%)		Voi			gm/litre			
											······	****
	1											
	GENERAL P	REMARKS			<u></u>							CE7A 16272 TayPt

Wente a	l	LANCAS	HIRE COU	NTY CC	DUNCI	-				JOB No)
*		BOREHO		ET No	2 OF	\sim	5	175	FII:	31 B.H. No	66C
	SCHEME	. 90 DIVSR310		10 400/11		\sim			<u></u>	DEPTH	18,8
	LOCATION	MAIN POUTE CH SIDE Prod CHA	AINAGE 2647m INAGE 35m OFF	0FFSET 970 SET 39m VI	e VEST EST					GROU	ND LEVEL
10	Desc	cription of Strat		Depth	.	. м.		LL/PL/Pi Core Rec'		'n N Value	Water & Casing Detai
British Geo	Medium dense, la dark brown,		British (Geological Surv	SP 1			rading	SF/H	L Geological 39 rvey	28.7.75 SML, 10.2m Casing 9.8m
11	very alightly c	layey sandy	SILT, and								29.7.75 SWL. 8.94
	very silty fine -Saturated	SAND.		11.6							
12	Loose to medium										
х.	dark grey-brown clayey sandy S				S2	29.	· •			N = 8	
13	_with thin partin				B	-	3	rading 0/21/9	ML CL		
.,	soft silty CLA										
- 14	and very silty :	fine SAND,									S.O. 14.000
					SP	24,			ML/C	H N - 22	
Dalitada Para	odical Survey		Dukat /	Saalaaiaal Ona	B	34.	.6		sr		•
British Ger 15				Geological Surv						h Geological Survey	
	. Very dense, dari silty medium - o olayey silty fin	coarse SAND/ ne SAND/	layered,	- 15.7	- KJ	10,	.4		su sc		29.7.75 BH. 'Dry' Casing 14.4m 30.7.75 BH. 'Dry'
16	-silty fine to me		ize stones.		SP SP	8.				¥ = 50	
				- 16.4	B	11.	.6			for 240mm	
. 17	dark grey_brown	•									
	eilty very sand, CLAY.		9			13,	,2				30.7.75 BH. 'Dry' Casing 16.0m 31.7.75 BH. 'Dry'
18								· · · · · · · · · · · · · · · · · · ·			31.7.75 BH. Dry
19				18.8	SP B	- 12,	.3 G	rading	CL	N = 50 for 210mm	4.8.75 BH. 'Dry' Casing 16.0m
British Geo	logical Survey		British (Geological Surv					Dilis	h Geological Survey	Casing withdrawn. 6.8.75 BH, Collapsed to 9.22 SWL, 9.12
20	STRENGTH	TEST RESU	JLTS								
	Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C.	Comp. S	Stress	Çoh	esion	ø		Remarks
		2270	1970	(%)	(kŇ/n	n2)		/m2) 05	25°	Quiek S.B. o	
	18. 35 - 18.80		17/0	15.3			P			WILLER D. D.	
1											
					<u> </u>	· · ·					
	· ····										
					ļ						
					<u> </u>						
British Ged	odical Survey		British	Geological Surv					Brill	h Geological Survey	
49 ¹¹ -											
-	COMPACTIC	N AND OT			S .						
	Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R	SO3 gm/linre	pН	Re,	harks or other tests

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MGUIC		LANCAS	HIRE COUN	TY CO	DUNCI	L				JOB No	5
		BOREHOL	E DATA SHEE	T No	1 OF.	1	M	251	=liz	B.H. No	• 5616/5 BR
	SCHEME	A.56 DIVERSION	N - HASLINGDEN '	TO ACCRI	NGI'ON	\sim	\mathcal{O}'	<u> </u>	<u></u> ^	DEPTH	6.3
	LOCATION	CHAINAGE 2645	OFFSET 95 D	AST VER	GE FIER,	HORTH	SIDE.	783	8 23	573GROUN	214.2 ND LEVEL
	Des	cription of Strati	m	Depth	Sampl 123 Ke		C. L	L/PL/PI ore Rec'y	Class'n	N Value	Water & Casing Detai
o British Geol	FILL Lineston	e chippings, ci	inders , black as	a. 0. 3					British G	iological Survey.	Started 24.11.75
	Medium hard to			_ •• •							
1	. weathered, mid — orange-brown)							3-4.8			-
	fine grained						75	S Recove	-3		
	inclusions. Be Joints vertica										-
2	- Soft to medium			- 1.8							
-	very broken to						1	8-3,3			
	weathered (par		mered)					Recover	7		
3	mid green_grey		,						<u> </u>		
	thinly cross b		e grained							· .	
	SANDSTONE .		-				3	3-4.8m Recover			
4	- Bedding sensib		•			1		a 'us coas	-y		
	Irregular frac	ture .	•								
British Geo	ogical Survey		Brilish Ger	4.8			Ì		Dilish Q	iological Survey	
5	Soft very brok			~							WE. 5.0m
	dark grey (sta	,					4	8-6.3			
	sandy MUDSTON	E. Some sign	s of bedding	Ì			55	Recover	2		
6	(sensibly hori	zontal). Irreg	ular fracture.						-		24.11.75 SWL. 0.3m
7	-		6.3							Casing 4.5m 25.11.75 SWL, 0.3m Casing withdrawn.	
,	- -									· ·	
											· ·
8	-					-					
	[
9 Britieh Gon	ogical Survey		Britich Gor	oligical Surv					Qriffich G	eological Survey	
Unitari OGU	ogical outroj		Dillion Oct						Under O		
10											
	STRENGTH	TEST RESU	JLTS								
	Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. {%}	Comp. (kN/r	Stress m ²)	Cohe (kN/		0		Remarks
		•									······································
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British Geo	ogical Survéy		British Geo						British G	eological Survey	
				· · · · · · · · · · · · · · · · · · ·							······································
	COMPACTIC		HER TEST R	ESIII T	2				<u> </u>		
	Depth of Sample		Dry Dens'y	M.C.	TT	Air	0.0.0	SO3		_	
	Separation Sample	Compaction	(kg/m3)	(%)	S.G.	Voids	C.B.R.	gm/litre	pН	Rem	arks or other tests
								-			
			1					I T			
	GENERAL F	EMARKS			ehole			<u></u>			CE7A 16272 Ta:
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			E DATA SHEE					~ I.	JUB No	о
-	SCHEME		- HASLINGDEN T			\sum_{i}	D725		23 DEPTH	1.4
	LOCATION	CHAINAGE 2706	OFFSET 8m EAS		1	T	841 2		GROUN	ND LEVEL 215.0
0	Des FILL.Black clin	cription of Strat			Sample 123 Key	м.с	LL/PL/P Core Rec	Class'r	N Value	Water & Casing Deta
British Geo 1	Pard, light bro closely jointed	own, fine grai d, flaggy SAN n and infilled	ned, British Geo DSTONK.	0,2 Iqjical Surve				British (Seplogical Survey	Started 9.10.75
. 2	-			1.4						9.10.75
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						-				
						 ·	•			
British Geo	i <u>ni</u> cal Survey		British Geo	logical Surve					Geological Survey	
								-		
British Geo	gical Survey			legical Surve					Hological Survey.	
	STRENGTH Depth of Sample	TEST RESU Bulk Dens'y (kg/m3)	JLTS Dry Dens'y (kg/m3)	M.C.	Comp. Str (kN/m2	ess	Cohesion (kN/m2)			
		(kg/m3)	(kg/m3)	(%)	(kN/m2		(kN/m²)	Ø		Remails
						-				
	-									
British Geo	rgical Suncy		British Geo	legical Suno				. Britigh (eological Survey	
	COMPACTIC	DN AND OT	HER TEST R	ESULT	'S			<u> </u>		
	Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	I s c T i	Air oids	C.B.R. SO3 gm/litre	pН	Rem	harks or other tests
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		L					L	<u> </u>		

GENERAL REMARKS

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	SCHEME		E DATA SHEE			2	SD	725	νEli	24 B.H. No	70
•	LOCATION		o OFFSET 21m				78	412	137	GROU	ND LEVEL240
		cription of Strate			Sampi 1 2 3 K	e M		LL/PL/PI Core Rec'			Water & Casing f
0	TO	PSOIL		0.15	123 K		.4	Core Rec			Start 1 26.11.73
British Geo	iogical Suivey Medium dense		British G	eologicar sun						ish Geological Surve	
. 1					i ~	Ĺ		-			
	slightly clayey	silty sandy									
	GRAVEL				្ទ្	⁹ 3 14	.7	Grading	Gi	N = 10	
· 2	┝- ┝				$\Box $						
			•					•			
. 3									_		
-	A few cobbles and pockets of send;				SI B	² 1 ⁸	1			N = 28	
	}	-									
.4							-+-			-	
	r r										
British S eo	ogical Survey		British G	eological Sun					Brit	ish Geological Surve	· · · · · · · · · · · · · · · · · · ·
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:7	[Í					· · · · · · · · · · · · · · · · · · ·
						P B 11		0		H = 24	26.11.73 BR. 'Dr
8	-		•				•2	Grading	GJ	N = 24	Casing 7.5m 27.11.73 PH. 'Dr
-											
	-	•					ł				
9	Medium dense			9.0		р в 7	.6		ST	J N = 19	**
British Geo	slightly silty		British G	eological Sun		· - ['	••		Biii		
10	fine to medium								1		na kananakan dan pantana da sarti kanala da sarti s
	STRENGTH			MC				•			
	Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. (kN/	Stress m2)	(k)	hesion N/m2}	Ø		Remarks
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											· · · · · · · · · · · · · · · · · ·
-	·										
British Geo	ogical Guivej		Drittale S	e ele gical Dua					Drii Drii	sh Goological Suno	
					<u> </u>	11)		andia victoriana			
	COMPACTIC		HER TEST F	M.C.	r	Air		1 50-			· · · · · · · · · · · · · · · · · · ·
	Depth of Sample	Compaction	(kg/m3)	(%)	S .G.	Voids	C.B.F	R. SO3 gm/litre	рН	Rer	narks or other tests
	0,6	- I	-	-	-	-	-	Slight	7.5	Water sample	
к.							1				

LOCATION	CHATNAGE 268	35a OFFSET 21	B EAST					GROU	ND LEVEL
	cription of Strat		Depth	Sample	М.С.	LL/PL/PI	Class		Water & Casing
codical Survey		Britist		123 Key		Core Rec'			
See Shee	t No. 1	Lindi	10.7			ŀ	Linus	georegieal earre	
Medium dense		H		SP E	28.8		ML	¥ = 20	WE. 11.0m (Trace
	ey sandy SIL	T]	
				SF	27.1			N = 11	
•						-			
-									
i ·									
Medium dense			13,6	L KJ	7.3			N - 26	1
dark grey-brow				2					
slightly clays		- Dritiek	i Geological Sur				- Drific	h Geological Surve	1
- with gravel si		LING	, ocopyral du					ni acoloĝiegi aŭisc	
and cobbles.					10-				27.11.73 SH. 1Dr
-				SP B	6.5 10.4	Grading	SF	N = 39	Casing 15.5m 28.11.73 EH. 'Dr
•	-								
ļ	•								
Hard broken			17.0	SP	-		GU	N = 50	
mottled orange medium to coar	-			- -	-			for 200mm	
- SANDSTONE (BC				SP					
F			18;4	- KJ	-				28.11.73 TH. IDr
Hard broken									Casing 18.4m 29.11.73 SWL, 18
Hard broken light brown			1 I I	SP	-		5.1	N = 50 for 60mm	29.11.73
light brown	SANDSTONE, H	Presumed bedro	i Geological Sur			1		T OT OTASIE	
light brown	SANDSTONE, H	Presumed bedro	i Geological Sur 19.5						Casing SML 19.0m CWC.
light brown		Britisi	i Geological Sui						Casing SWL 19.0m CWC.
light brown fine grained logical Suvey		Britisi	i Geological Sui	Comp. St (kN/m	rress 2)	Cohesion (kN/m2)	Ø		Casing SWL 19.0m CWC. Remerks
light brown fine grained logical Survey STRENGTH	TEST RESU	ULTS	19.5	Comp. St (kN/m	tress 2)	Cohesion (kN/m2)			Casing SWL 19.0m OWC.
light brown fine grained logical Survey STRENGTH	TEST RESU	ULTS	19.5	Comp. St (kN/m	2)	Cohesion (kN/m2)			Casing Swil 19.0m OWC.
light brown fine grained logical Survey STRENGTH	TEST RESU	ULTS	19.5	Comp. Si (kN/m	rress 2)	Cohesion (kN/m2)			Casing Swil 19.0m OWC.
light brown fine grained logical Survey STRENGTH	TEST RESU	ULTS	19.5	Comp. Si (kN/m	(ress 2)	Cohesion (kN/m2)			Casing Swil 19.0m OWC.
light brown fine grained logical Survey STRENGTH	TEST RESU	ULTS	19.5	Comp. St (kN/m)	(ress 2)	Cohesion (kN/m2)			Casing Swi 19.0m CWC.
light brown fine grained logical Survey STRENGTH	TEST RESU	ULTS	19.5	Comp. St (kN/m)	2)	Cohesion (kN/m2)			Casing Swi 19.0m CWC.
light brown fine grained ogical Survey STRENGTH Depth of Sample	TEST RESU	ULTS Dry Dens'y (kg/m3)	M.C.	Comp. St (kN/m)	(ress 2)	Cohesion (kN/m2)	Ø		Casing SWL 19.0m OWC. Reinerks
light brown fine grained logical Survey STRENGTH	TEST RESU	ULTS	19.5		(ress 2)	Cohesion (kN/m2)	Ø	sh Geological Surve	Casing SWL 19.0m OWC. Reinarks
light brown fine grained logical Survey STRENGTH Depth of Sample	TEST RESU Bulk Dens'y (kg/m ³)	ULTS Dry Dens'y (kg/m3)	Geological Sur		(ress 2)	Cohesion (kN/m2)	Ø		Casing SWL 19.0m OWC. Reinerks
light brown fine grained ogical Survey STRENGTH Depth of Sample	TEST RESU Bulk Dens'y (kg/m ³)	ULTS Dry Dens'y (kg/m3) Britist HER TEST Dry Dens'y	Geological Sur (%) Geological Sur RESULT	S	Air	5 p S03		sh Geological Surve	Casing SWL 19.0m OWC. Reinerks
light brown fine grained logical Survey STRENGTH Depth of Sample	TEST RESU Bulk Dens'y (kg/m ³)	JLTS Dry Dens'y (kg/m3) Billist	Geological Sur M.C. (%) Geological Sur RESULT	S				sh Geological Surve	Casing SWL 19.0m OWC. Reinarks
light brown fine grained ogical Survey STRENGTH Depth of Sample	TEST RESU Bulk Dens'y (kg/m ³)	ULTS Dry Dens'y (kg/m3) Britist HER TEST Dry Dens'y	Geological Sur (%) Geological Sur RESULT	S	Air	5 p S03		sh Geological Surve	Casing SWL 19.0m OWC. Reinerks

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SCHEME		LE DATA SH DN - HASLINGD				5D	72:	SE		0
	CHAINAGE 2736				-	784	22	381		ND LEVEL
Des	cription of Strat		Depth	Samp	ie I M		LL/PL/PI ore Rec'y			Water & Casiny Det
O FILL Black of Hard flaggy	linker ash an SANDSTONE		tish Geological S		<u>cy</u>		Jore free y		tisl Geological Sul	Started 9.10.75 9.10.75
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STRENGTH										
Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. (kN/	Stress (m2)	Coh (kN/	esion (m2)	Ø		Remarks
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COMPACTIC	N AND OT	the second second second second second second second second second second second second second second second s		S						
Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	\$.G.	Air Voids	C.B.R.	SO3 gm/litre	ρH	Ren	narks or other tests
GENERAL R	EMARKS	Ma	chine excav	vated tr	ial pi	t.				C87A L6272 Ta

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SCHEME A.56 DETREMING - REALIZING TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION TO ADDITION					E DATA SHE				/	<u> </u>	~ ~	_1			5516/4
LOCATION CHARGE 26/% OFFEN 4F RAT Description of Stratum POINT Cover Net V Casing Charge Cover Net V Casing Charge Cover Net V Casing Charge Cover Net V Casing Charge Cover Net V Casing Charge Strated Strate Strated Cover Net V Casing Charge Strated Strate Strated Strate Str	4	۶	SCHEME	A.56 DIVERSIO	N - HASLINGDER ET OVERBRIDGE.	TO ACCRI	1/370	N 💊	<u> </u>		••••••	·······	25	DEPTH	13.0
0 1000000000000000000000000000000000000				CHAINAGE 2657	m OFFSET 41m	EAST							 1 -	GROUN	ND LEVEL 230.7
Operation Operating Constrained Constrained <thconstrained< th=""> <thconstrained< th=""> <th< td=""><td></td><td>0</td><td></td><td>-</td><td>um</td><td>Depth</td><td>12</td><td>Kcy</td><td>м.с</td><td></td><td>Dre Rec'y</td><td>/ Class</td><td>s'n</td><td>N Value</td><td>Water & Casing Detai</td></th<></thconstrained<></thconstrained<>		0		-	um	Depth	12	Kcy	м.с		Dre Rec'y	/ Class	s'n	N Value	Water & Casing Detai
Stift autilist autilist <t< td=""><td></td><td></td><td>· · · · · · · · · · · · · · · · · · ·</td><td></td><td>British (</td><td>Beological Survi</td><td></td><td>U4</td><td></td><td></td><td></td><td>ei</td><td></td><td>logical Survey</td><td>BH. Started 3.7.75</td></t<>			· · · · · · · · · · · · · · · · · · ·		British (Beological Survi		U 4				ei		logical Survey	BH. Started 3.7.75
2 encage-brown and gray-brown gravel stores 16,5 30/17/13 CL 3 - 16,5 30/17/13 CL 150mm of Casing 3 - - 15,5 30/17/13 CL 150mm of Casing 4 - - - - 150mm of Casing 150mm of Casing 5 Fort to hard very broken - - - 11,1 - 150mm of Casing 6 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -		'						КJ					+		
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4 13.0 25/13/12 0.1 150mm of Casing 5 Seft to hard very broken 4.6 11.1 57.75ml 3.7.75 Bit. 'Try' 5 Very wathered yallow-brown 5.4 57 11.1 57.75ml 3.7.75 Bit. 'Try' 6 Mito-brown 5.4 5.4 5.4 5.4 5.4 6 Mito-brown 5.4 5.4 5.4 5.4 5.4 7 Statest Soft to vertical, 5.4 5.4 5.4 5.4 8 Joints 60° to vertical, 5.4 5.4 5.4 5.4 5.4 9 Istate to asking grained 3.4.75 Struct y bring of casing 5.4 5.4 5.4 5.4 9 Istate structure istate 5.4 5.4 5.4 5.4 5.4 5.4 9 Istate structure istate 5.4 5.4 5.4 5.4 5.4 5.4 9 State of of overtical, structure istate structure istate structure istate structure istate structure istate structure istate str		,	Uccasional col	obies.											
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4 4.6 11.1 20 ² 75 ²⁰ /75 ²⁰ 3.7.75 HL, "Try" 5 Soft to hard very broken 4.6 5 11.1 20 ² 75 ²⁰ /75 ²⁰ 3.7.75 HL, "Try" Bard intact SP 11.1 20 ² 75 ²⁰ /75 ²⁰ 3.7.75 HL, "Try" Bard intact SP 11.1 20 ² 75 ²⁰ /75 ²⁰ 3.7.75 HL, "Try" Set to hard very broken SP 11.1 20 ² 75 ²⁰ /75 ²⁰ 3.7.75 HL, "Try" Bard intact SP SP 11.1 20 ² 75 ²⁰ /75 ²⁰ 3.7.75 HL, "Try" Contact of the set of the grained SP					•			114	13.0	25	13/12	ct.			150mm Ø Casing
Soft to hard very broken 4.6 Wary weathered yellow-brown 5.4 Fine grained SMESTORE 5.4 Bard intext 5.4 Generation Stress 5.4 Bard intext 5.4 Generation Stress 5.4 Bard intext 5.4 Generation Stress 5.4 Bard broken 5.5 Inregularly fractured, 5.0 Waster in joints 8.0 Bard broken 10.7.75 Intext of where in joints 10.7.75 STRENGTH TEST RESULTS Bard of 0° Desth of Sample Bulk Dearty Dry Dearty (My Dry Dearty (My Dry Dearty (My My		4	- 						L						
Sector Construction Sector S			• •					100	1						
• very vest vest private red solutions 5.4 • find intact 5.4 • pillow-brown 5.4 • find intact 9.7,75 • vertical, original dispective 9.7,75 • original dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispective 9.7,75 • introduction dispectintroduction 9.7,75	Dailiat	D		-	Dritisk /			SP	11.1					N = 50	3 7 75 BH IDmy 1
Bard intext \$1,75 Bit hey' yellow-brown fine to medium grained Skutstok:	DIIISII	्र		+		-			-		• •	0100		tuji Sramilej	
6 yellow-brown fine to sectua grained SMSTONE. Joints 60° to vertial, oxidised.siges of water is joints 8,0 10,7.75 10,7.75 8 Hard broken irregularly fractured, subbred yellow-brown, fine to sectian grained SAMSTONE. Joints vertical and 60°. 8,0 9,27.75 10,7.75 9 Sints vertical and 60°. 8,0 9,27.75 10,7.75 10 Sints vertical and 60°. 10,7.75 11,7.75 11 Sints vertical and 60°. 10,7.75 11,7.75 10 Sints vertical and 60°. 10,7.75 11,7.75 11 Sints vertical and 60°. 10,7.75 11,7.75 10 Sints vertical and 60°. 10,7.75 11,7.75 11 Sints vertical and 60°. 10,7.75 11,7.75 12 Sints vertical and 60°. 10,0.7,7 10				SANDSTONE .		5.4	2								4.7.75 BH. 10mv1
fine to sedius grained substroms Jostes 60° to vertical, oxidised signs of water in joints 8.0 5.4 - 0.08 5.5 Heovery (atter fluss) from 5,4 a 8 Hard broken irregularly fractured, westbared yellow-brown, fine to sedius grained SUBSTORE 8.0 10.7.75 9 Hard broken irregularly fractured, westbared yellow-brown, fine to sedius grained SUBSTORE 8.0 10.7.75 10 Sints or vertical and 60°. Bard Gard State (Kd/m2) 10.7.75 10 Sints or vertical and 60°. Bard Gard State (Kd/m2) 0.0 0.55 - 0.75 - - 23.6 - 0.75 - 1.00 - - 23.6 - - 0.75 - 1.00 - 21.0 - - Stiff ally good clary with 2.20 - 2.65 2180 1870 16.5 108 94 - 100 U.C.T. 3.60 - 4.05 2170 1910 13.0 230 115 - 28 U.C.T. (R) Depth of Sample Compaction Dry Ders'Y M.C. (Kd/m2) M.C. (Kd/m2) M.C. (Kd/m2) Compaction Remarks 0.65 - 17.00 - - - - - - - -		6	yellow-brown				Sec. 1								9.7.75 Rotary Boring
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	Open hole to 5.	.0m.		•							ULCIPED NOLO,
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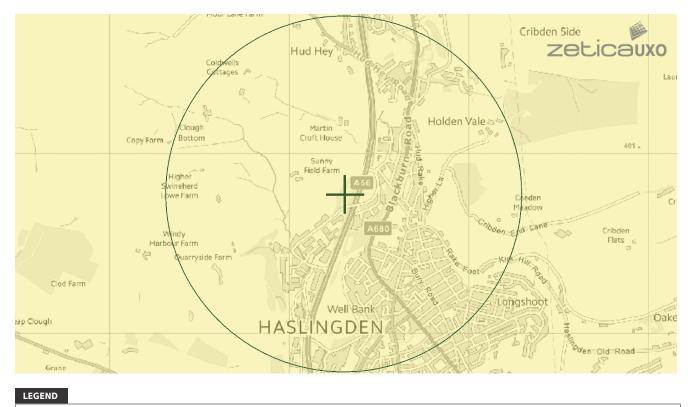
C. UXO Risk Map

UNEXPLODED BOMB RISK MAP



SITE LOCATION

Map Centre: 378315,423778



High: Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.	👔 miltary 🖾 industry 🛛 🍞 UXO find	
Moderate: Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.	transport 🛃 dock 🛛 🔀 Luftwaffe targets	
Low: Areas indicated as having 15 bombs per 1000acre or less.	😿 utilities Bombing decoy 👔 other	

How to use your Unexploded Bomb (UXB) risk map?

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment* is necessary.

What do I do if my site is in a moderate or high risk area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites in a moderate or high UXB risk area.

Similarly, if your site is near to a designated Luftwaffe target or bombing decoy then additional detailed research is recommended.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.

If my site is in a low risk area, do I need to do anything? If both the map and other research confirms that there is a low potential for UXO to be present on your site then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

If I have any questions, who do I contact?

tel: +44 (0) 1993 886682

email: uxo@zetica.com

web: www.zeticauxo.com

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: (https://zeticauxo.com/downloads-and-resources/risk-maps/)

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgment. The copyright remains with Zetica Ltd.

It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.