



*ROCHDALE BOROUGH
COUNCIL*



Sir Frederick Snow & Partners Ltd

*LOWER STARRING FARM COTTAGE
PHASE 1 LAND CONTAMINATION AND PRELIMINARY
RISK ASSESSMENT
FS 4850*

<i>Rev</i>	<i>Date</i>	<i>Reason for Revision</i>
01	31.03.23	Issued for Planning

<i>Authorisation Record</i>		<i>Structural Engineer</i>	<i>Lead Structural Engineer</i>	<i>Project Structural Engineer</i>
01	31.03.23	N. Hobson	N. Hobson	P. Drobig
Rev	Date	Prepared by	Recommended by	Approved by

REVISION RECORD SHEET

Revision Number	Purpose	List of Updated/Modified Sections, if any
01	31.03.23	Issued for Planning Application

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1 INTRODUCTION

1.1 GENERAL

- 1.1.1 Sir Frederick Snow & Partners have undertaken a Phase 1 Land Contamination and Preliminary Risk Assessment for Lower Starring Farm Cottage, Littleborough, OL15 8HN. This report was required to supplement a planning application for the conversion of an attached barn into living accommodation.
- 1.1.2 The purpose of this report is to research and make an assessment of (without intrusive investigation) the environmental, geological, hydrogeological and hydrological conditions likely to be present at the site, and develop an understanding of potential contamination risks that might exist or arise.

1.2 LIMITATIONS

- 1.2.1 This report is based on desk study information and third party intrusive ground investigation data. Sir Frederick Snow and Partners take no responsibility over the accuracy of the third-party information.

2 DESK STUDY

2.1 SOURCES OF INFORMATION

- 2.1.1 The following sources of information have been used in preparation of this report:
- *British Geological Survey (NERC) Map Sheets Bradford; Solid and Drift Edition, and Geology of Britain Viewer [online resource from www.bgs.ac.uk]*
 - *British Geological Survey (NERC) Lexicon of Named Rock Units [online resource from www.bgs.ac.uk]*
 - *British Geological Survey, Scanned Records, Borehole Record Viewer [online resource from www.bgs.ac.uk]*
 - *Catchment Based Approach Data Hub – Historic Landfill Sites [online resource from <https://data.catchmentbasedapproach.org/maps/historic-landfill-sites>]*
 - *Coal Authority Online Services [online resource from www.groundstability.com/public/web/home.xhtml]*
 - *Contaminated Land Risk Assessment – A guide to good practice [CIRIA C552]*
 - *Flood Map for Planning [online resource from flood-map-for-planning.service.gov.uk]*
 - *Groundwater Protection Zones (SPZs) [online resource from www.gov.uk/guidance/groundwater-source-protection-zones-spzs#defined]*

- *Public Health England (UK radon)*
[online resource from www.ukradon.org/information/ukmaps/]
- *Littleborough History*
[online resource from <https://www.littleboroughshistory.org/>]
- *Wikipedia*
[online resource from en.wikipedia.org/wiki/Littleborough,_Greater_Manchester]
- *Zetica Unexploded Bomb (UXB) Risk Map*
[online resource from zeticauxo.com/downloads-and-resources/risk-maps/]

2.2 SITE LOCATION

2.2.1 The site is located at Lower Starring Farm on the outskirts of Littleborough.

The site address is Lower Starring Cottage, Lower Starring Farm, Littleborough OL15 8HN and the Ordnance Survey national grid reference for the centre of the site is 392424,416553 (SD924165).

A site location plan is included in Appendix A.

2.3 SITE DESCRIPTION

2.3.1 The proposed conversion of an existing barn attached to Lower Starring Farm to create additional living accommodation. The site is allocated as Defined Urban Area under the council's Unitary Development Plan.

2.4 SURROUNDING AREA

2.4.1 The surrounding area comprises the land uses summarised in Table 2.1

Table 2.1 Summary of Surrounding Land Use

Direction	North	East	South	West
Surrounding Land Use	To the north lies agricultural farmland. Residential properties populate the northeast.	To the east of the site there is residential housing.	To the southwest lies farmland and Higher Starring Farm.	To the west of the site there is farmland.

2.5 SITE HISTORY

2.5.1 Ubiquitous internet searches, local historical data and historical OS maps have not revealed anything other than living accommodation and agricultural use for this site.

2.6 HISTORICAL EXPLORATORY HOLE RECORDS

2.6.1 The BGS has records of some historical boreholes located 500 m south of the site and copies are included in Appendix B. The boreholes have limited descriptive information showing sandy clay and sandstone in multiple locations at various points up to 1.5 m depth.

2.7 COAL MINING

- 2.7.1 The Coal Authority Online Services confirm the site is located on the coalfield, a standard mining report is recommended for the property.

2.8 HYDROGEOLOGY AND FLOODING

- 2.8.1 The site is some 200m south of Featherstall Brook. Environment Agency data indicates that the site is located in flood zone 1, an area with a low probability of flooding. A copy of the EA flood map for planning is given in Appendix C, downloaded via the flood map for planning online service.

The site area is less than 1 Hectare, a flood risk assessment is not required for planning.

- 2.8.2 Environment Agency online data indicates that the site does not lie on a groundwater source protection zone (SPZ).

2.9 LANDFILL AND WASTE

- 2.9.1 There are no currently active landfill sites nearby. The landfill site map provided online by Catchment Based Approach Data Hub shows the nearest historical landfill is located 1 km away from the site adjacent to Stubley Mill Road. The site is therefore outside the 'zone of concern' stipulated in Part C of the Building Regulations, the buffer zone extends 250 m from the landfill site.

2.10 UNEXPLODED ORDANANCE

- 2.10.1 The Zetica Unexploded Bomb (UXB) Risk Map indicates that the site is located in an area of low risk of encountering UXBs. A copy of the risk map is given in Appendix D.

3 SITE WALKOVER

3.1 GENERAL

- 3.1.1 A site walkover survey was conducted to identify any pollution linkages. No potential problem areas were found on the ground:

- There was no evidence of any previous industrial activity.
- There are no underground or above ground tanks or fuel tanks.
- No chemical stores, waste storage areas or 'dirty work' areas.
- No visual or odorous evidence of contamination.
- No signs from distressed vegetation.

4 PRELIMINARY CONCEPTUAL SITE MODEL AND RISK ASSESSMENT

4.1 GENERAL

- 4.1.1 The site historically has only been used for living accommodation and agricultural use; it is therefore very unlikely the site has contaminants associated with industrial activity or hazardous profiles as published by The Department of the Environment. Thus the risk assessment is that potential receptors are at low risk of contamination with minor consequence.

5 CONCLUSIONS

5.1 GENERAL

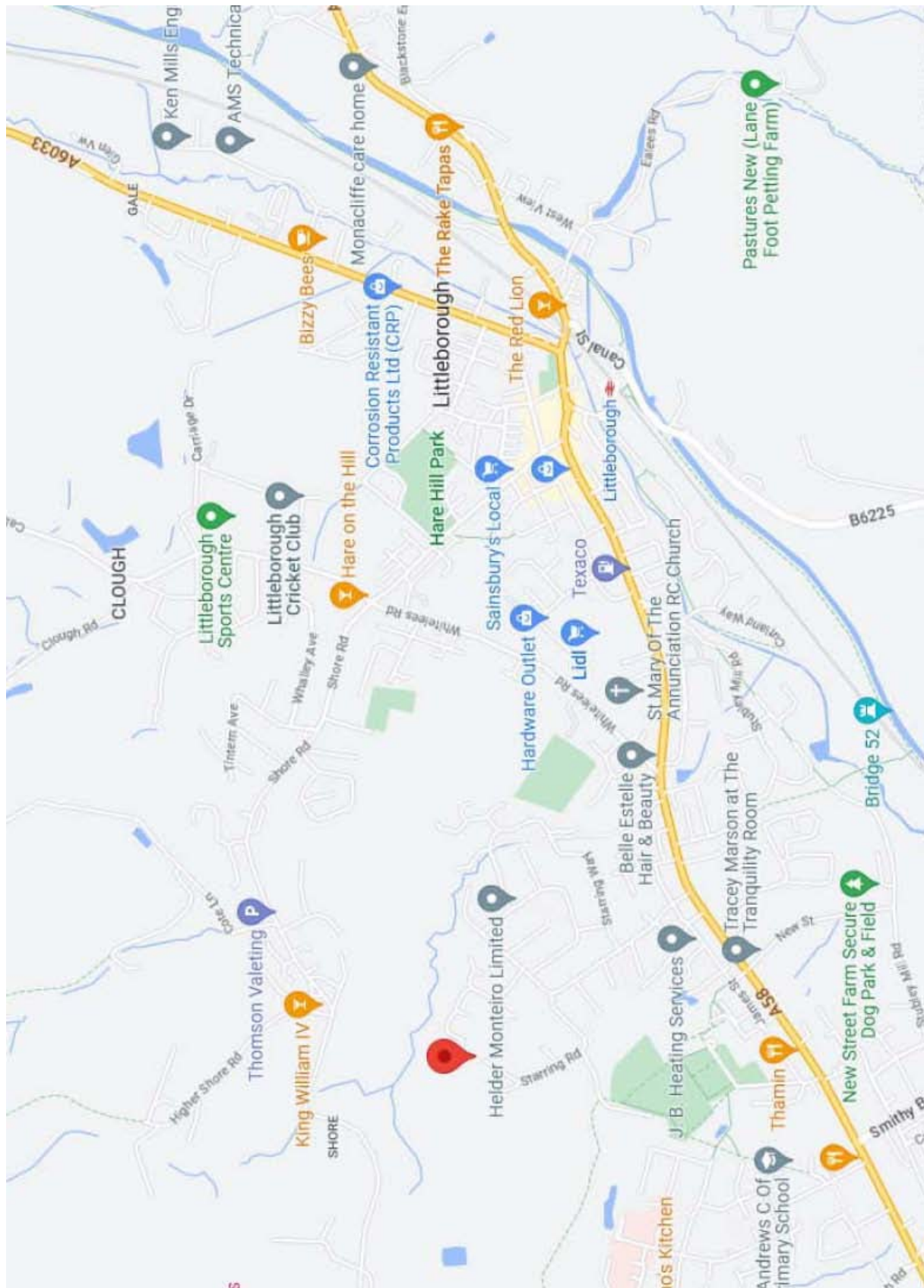
- 5.1.1 A low risk of potential contaminant linkage has been identified.
- 5.1.2 The site lies far outside the 250m buffer zone necessary for landfill sites. There is a low risk of encountering unexploded ordinance. The site lies in an area at low risk of flooding and is not on a groundwater source protection zone (SPZ).

The site has an area less than 1 hectare therefore a flood risk assessment is not required.

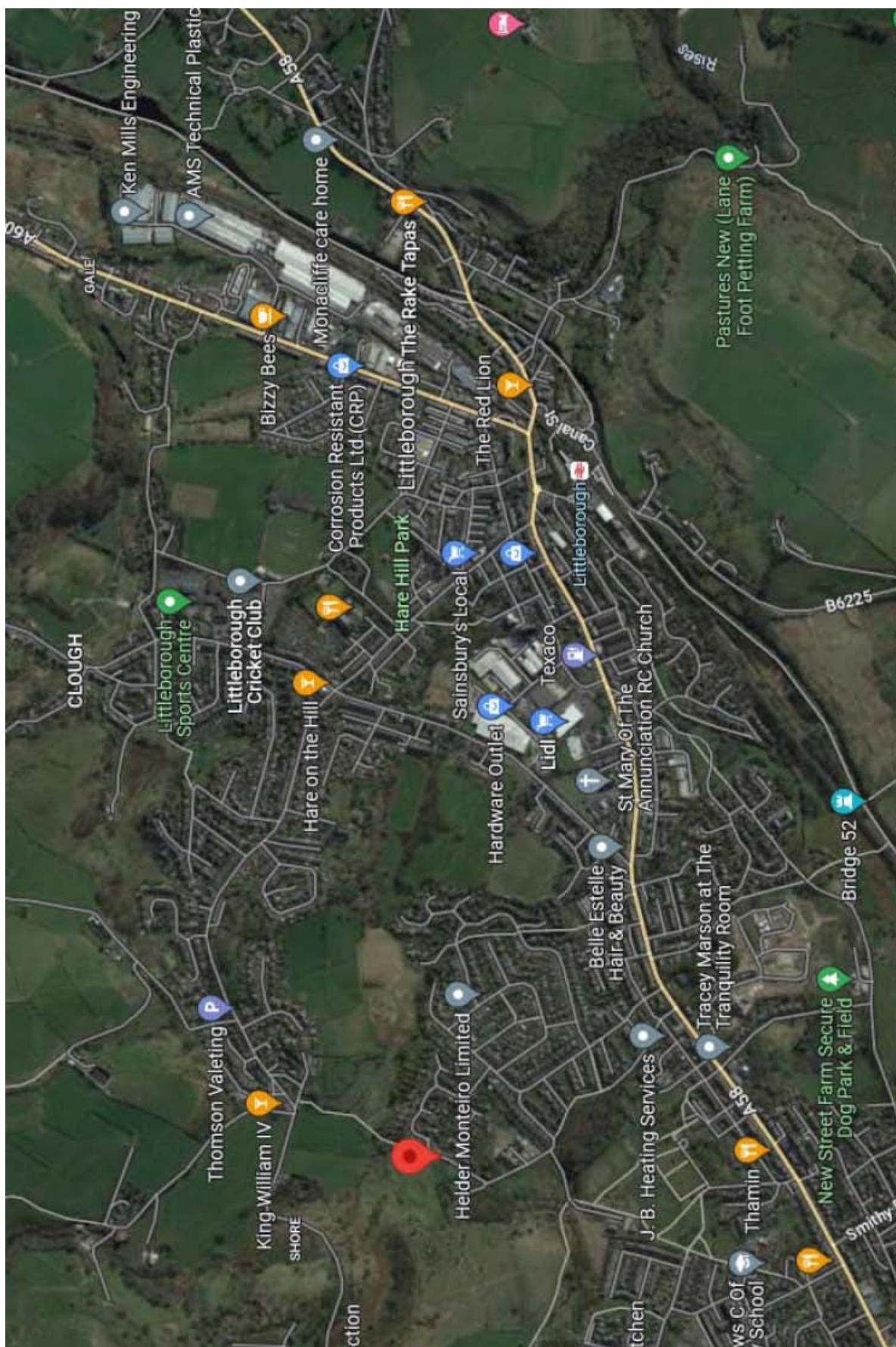
The Coal Authority Online Services confirm the site is located on the coalfield, a standard mining report is recommended for the property.

6 APPENDICES

6.1 APPENDIX A: LOWER STARRING FARM COTTAGE LOCATION PLANS

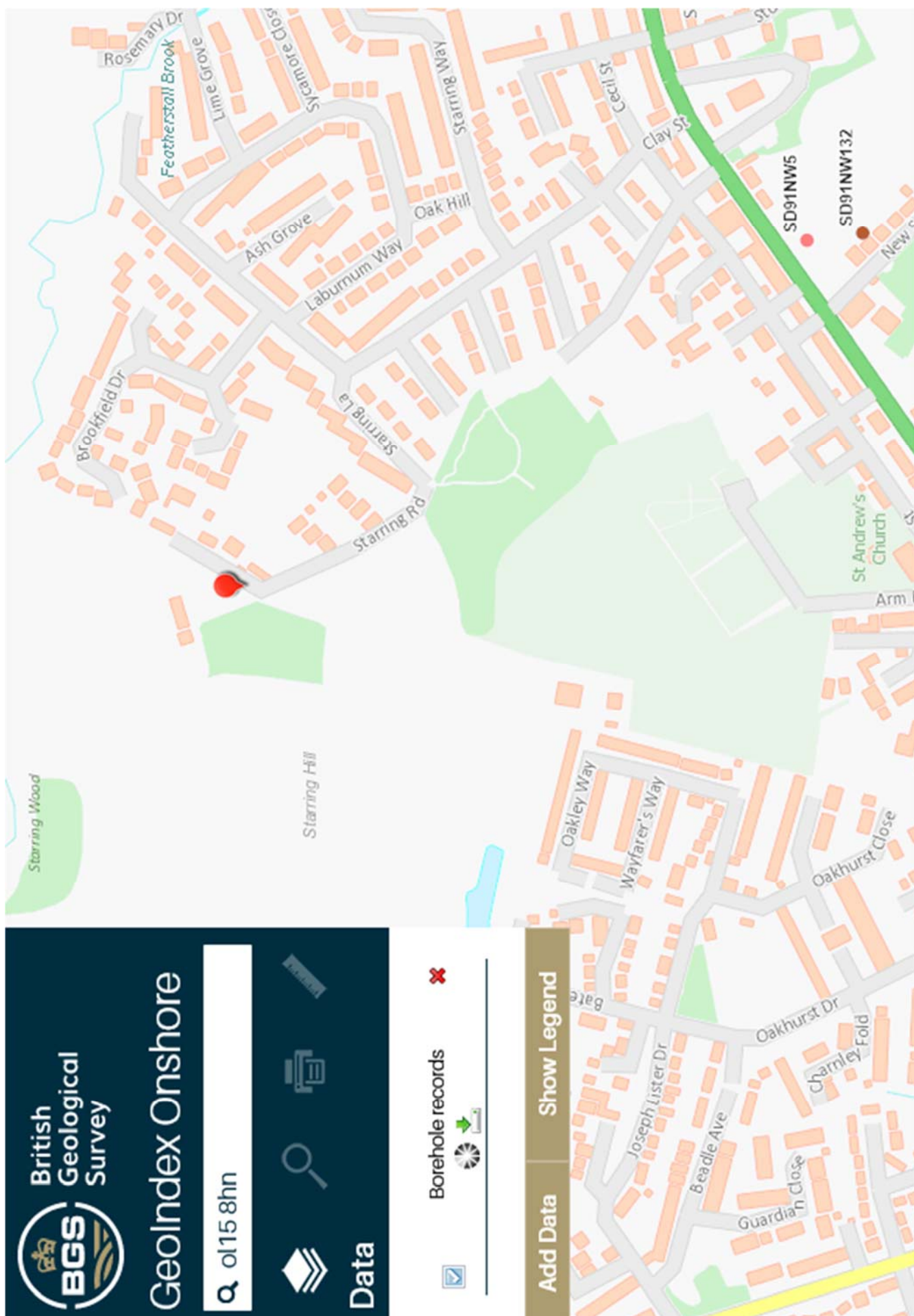


Lower Starring Farm Location Plan



Lower Starring Farm Location Plan (Satellite View)

6.2 APPENDIX B: HISTORICAL BOREHOLE RECORDS



NGR. C. 9266 1601

GEOLOGICAL SURVEY AND MUSEUM. BOREHOLES AND SHAFTS.

Boring at Stibbly Row. (Lancashire Tannery)
 5
 County Lancashire
 6 in. Map 8/SW.

SD 91 NW/5

County

6" Quarter Sheet

Description.	THICKNESS.		DEPTH.		THICKNESS		DEPTH	
	Feet.	Inches.	Feet.	Inches.	metric	metric	metric	metric
Down to a level of 160 feet percussion drilling was employed and no cores preserved. Consequently the description of the strata above 160 feet is based entirely on the bore's record. The basey lime coal was no doubt present but would come up the tubes as waly sludge (D.A.W.).								
SUPERFICIAL { Surface. - - - - -	7ft	2in.	7ft.	2in.	0	23	0	23
Sandy clay - - - - -	4	3	5	0	0	30	1	53
Sand - - - - -	1	6	6	6	0	45	1	98
Gravel and big boulders - - - - -	5	0	11	6	1	53	3	51
Sand & gravel - - - - -	12	0	23	6	3	65	7	16
Sandy clay - - - - -	10	0	33	6	3	05	10	21
GLACIAL { Sand & gravel - - - - -	8	6	42	0	2	59	12	80
103ft. 3in. { Clay and stones - - - - -	12	0	54	0	3	66	16	46
Sand - - - - -	2	0	56	0	6	61	17	07
Clay and stones with big boulders - - - - -	10	0	66	0	3	05	20	12
Gravel - - - - -	9	0	75	0	2	74	22	86
Loamy sand with beds of gravel - - - - -	12	0	87	0	3	66	22	52
Gravel - - - - -	2	0	89	0	6	61	27	13
Loamy sand - - - - -	15	0	104	0	4	57	31	70
SHALE { Dark shale - - - - -	20	0	124	0	6	10	37	80
48ft 6in. { Strong sandy shale (with traces of coal according to Resident Engineer) - - - - -	28	6	152	6	8	68	46	48
Sandstone - - - - -	7	6	160	0	2	29	48	77
[Below this level cores available examined]								
Hard grey massive falsebedded fine-grained sandstone - - - - -	2	0	162	0	0	61	49	38
Rather soft coarse grey sandstone (water overflowing) - - - - -	6	0	168	0	1	53	51	21
WOODHEAD HILL { Massive yellow coarse grained falsebedded sandstone - - - - -	28	0	196	0	8	53	59	74
ROCK { Hard micaceous sandy shale (broken) - - - - -	0	10	196	10	0	26	60	00
117ft. 6in. { Massive falsebedded grey sandstone, fine bands rather coarse - - - - -	10	2	207	0	3	09	63	09
Massive grey sandstone with occasional fine-grained cracks - - - - -	30	3	237	3	9	22	72	31
Massive grey sandstone with specks of iron pyrites - - - - -	0	9	238	0	0	23	72	54
Massive coarse grained sandstone; occasional coarse bands with waly fragments - - - - -	32	0	270	0	9	76	82	30
SHALE { Fine black micaceous shale and shaly mudstone - - - - -	4	0	274	0	1	22	83	52
4ft.								

(B12267) Wt. 13119A-0014 5000 9.27 Gp. 160 O.A.

SD9NW5

70
5

Trial boring at Stubby Brow, Littleborough.

British Geological Survey Messrs. J. Thom. Artesian Well Engineers, Paternoster, Manchester.

LITTLEBOROUGH

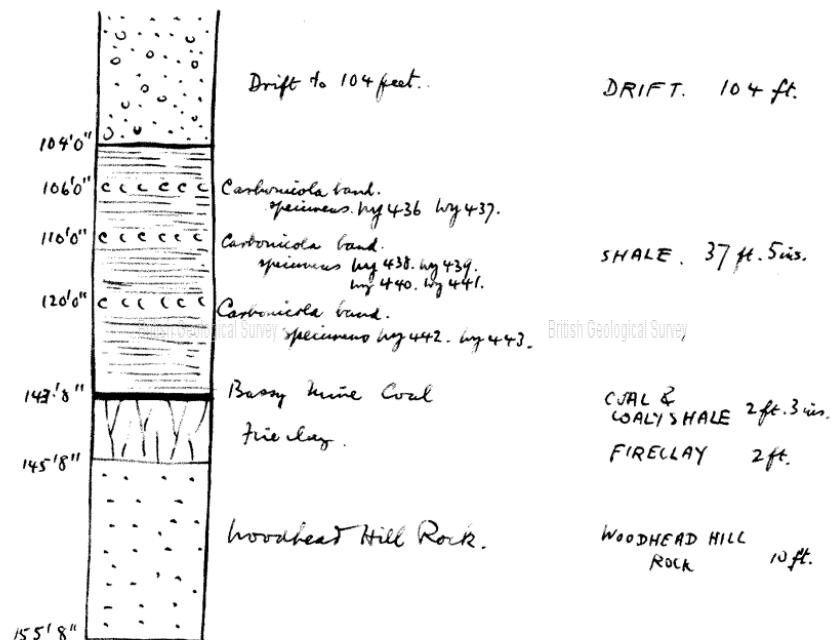
		Thickness (metres)	Depth
Surface	104' 0"		31.70
14' 6" Shale.	118' 6"	4.42	36.12
15' 0" Night shift.	133' 6"	4.57	40.69
7' 11" Shale.	141' 5"	2.41	43.10
3" Coaly shale.	141' 8"	0.08	43.18
2' 0" Shale.	143' 8"	0.61	43.79
2' 0" Sandy fireclay.	145' 8"	0.61	44.40
1' 8" Shaley sandstone.	147' 4"	0.51	44.91
1' 0" Sandy shale.	148' 4"	0.30	45.21
7' 4" Sandstone.	155' 8"	2.23	47.44

The above boring was a trial one made previously to the main boring given on page 2. to test the thickness of the drift. Cores of the shale between 110 feet & 120 feet yielded specimens of Carbonicola which were collected. My reading of the section is given on next sheet:—

(D.A.May).

91 NW 5

5



D. A. May -
July 14 1886.

JOHN THOM LTD.

CONTINUATION

Journal of Borehole put down for

The Lancashire Tanning Co., at Littleborough.

Ft.	ins.		Ft.	ins.	
	9	Surface		9	
4	3	Sandy clay.	5	0	
1	6	Sand.	6	6	
5	0	Gravel and big boulders.	11	6	
12	0	Sand and gravel.	23	6	
10	0	Sandy clay.	33	6	
8	6	Sand and gravel.	42	0	
12	0	Clay and stones.	54	0	
2	0	Sand.	56	0	
10	0	Clay and stones with big boulders.	66	0	
9	0	Gravel.	75	0	
12	0	Loamy sand, beds of gravel.	87	0	
2	0	Gravel.	89	0	
15	0	Loamy sand.	104	0	
20	0	Dark shale.	124	0	
28	6	Strong sandy shale.	152	6	
4	6	Milnrow, or Trough Edge 3/4 stone.	157	0	
5	0	Coarse grey sandstone.	162	0	
6	0	Soft sandstone, water overflowing.	168	0	
28	0	Hard grey sandstone.	196	0	
	10	Sandy shale. } Broken.	196	10	
10	2	Grey sandstone.	207	0	
30	3	Hard grey rock, broken.	237	3	
	9	Broken grey rock, specks of Pyrites. }	238	0	
32	0	Broken grey rock.	270	0	
4	0	Broken dark shale.	274	0	

TOTAL DEPTH 274 ft.

SD 91 NW 5

5

BORING FOR WATER.

Stabley Brow, LITTLEBOROUGH.

{ 1" map. Rochdale (76).
{ 6" map. Lancashire 81SW.

Made for the Lancashire Tanning Company
June to November, 1936.

Made & communicated by Messrs. J. Thom & Co. Artesian
Well Engineers, Patricroft, Manchester.

Site. On south side of the Halifax-Rochdale main
road, 120 yards west of Stabley Hall and about
1400 yards west-south-west of Littleborough Parish Church.

About 195 feet O.D.

Average yield 30,000 gallons per hour.

Water level	8 p.m. Thursday (Nov. 12)	After 2 days continuous pumping	15 feet down.
"	8 p.m. Friday (Nov. 13)	" 3 "	" 19.6 feet down.
"	8 p.m. Saturday (Nov. 14)	" 4 "	" 21.6 feet down.
"	8 p.m. Sunday (Nov. 15)	" 5 "	" 24.6 feet down.
"	10 a.m. Monday (Nov. 16)	" 5½ "	" 25.6 feet down.

Average yield 31,000 to 29,810 gallons per hour.
Overflow 3000 gallons per hour.

Visited and sited on 6" map. No further information N.B. O.D. 496 approx.

B.M. 4.56.

SD 91/4
76/785
British Geological Survey

{ 1" map. Rockdale (76).
 { 6" map. Lancashire 815W.

Made for the Lancashire Tanning Company
June to November, 1936.

Made & communicated by Messrs. J. Thom & Co. Waterman
Well Engineers, Patricroft, Manchester.

Site. On south side of the Halifax-Rochdale main road, 120 yards west of Staley Hall and about 1400 yards west-south-west of Littleborough Parish Church.

About 495 feet O.D.

Average yield 30,000 gallons per hour.

Water level 8 p.m. Thursday (Nov. 12) After 2 days continuous pumping 13 feet down.
 " " 8 p.m. Friday (Nov. 13) " 3 " " " 14.6 feet down.
 " " 8 p.m. Saturday (Nov. 14) " 4 " " " 21.6 feet down.
 " " 8 p.m. Sunday (Nov. 15) " 5 " " " 24.6 feet down.
 " " 10 a.m. Monday (Nov. 16) " 5½ " " " 25.6 feet down.

Average yield 31,000 to 24,810 gallons per hour.
Overflow 300+ gallons per hour.

Worked on the 1st of Aug. 1948. 1st of Aug. 1948.

GEOLOGICAL SURVEY AND MUSEUM. BOREHOLES AND SHAFTS.

Boring at Shibley Brow.

Folio

County Lancashire
6 in. Map 81SW.

SD91/474
76/785
2

British Geological Survey

British Geological Survey

Description.	THICKNESS.		DEPTH.	
	Feet.	Inches.	Feet.	Inches.
Down to a level of 160 feet percussion drilling was employed and no cores preserved. Consequently the description of the strata above 160 feet is based entirely on the bore's record. The heavy fine coal was no doubt present but would come up the tubes as waly shudge (D.A.W.).				
SUPERFICIAL { Surface. - - - - -	ft.	in.	ft.	in.
Sandy clay - - - - -	4	3	5	0
Sand - - - - -	1	6	6	6
Gravel and big boulders - - - - -	5	0	11	6
Sand & gravel - - - - -	12	0	23	6
Sandy clay - - - - -	10	0	33	6
GLACIAL { Sand & gravel - - - - -	8	6	42	0
103 ft. 3 in. Clay and stones - - - - -	12	0	54	0
Sand - - - - -	2	0	56	0
Clay and stones with big boulders - - - - -	10	0	66	0
Gravel - - - - -	9	0	75	0
Loamy sand with bits of gravel - - - - -	12	0	87	0
Gravel - - - - -	2	0	89	0
Loamy sand - - - - -	15	0	104	0
SHALE { Dark shale - - - - -	20	0	124	0
48 ft 6 in. Strong sandy shale (with traces of coal according to Resident Engineer) - - - - -	28	6	152	6
Sandstone - - - - -	7	6	160	0
[Below this level cores available & examined]				
Hard grey massive falsebedded flaggy sandstone - - - - -	2	0	162	0
Rather soft coarse grey sandstone (water overflowing) - - - - -	6	0	168	0
WOODHEAD HILL { Massive yellow coarse grained falsebedded sandstone - - - - -	28	0	196	0
ROCK { Hard micaceous sandy shale (broken) - - - - -	0	10	196	10
117 ft. 6 in. Massive falsebedded grey sandstone, fine bands rather coarse - - - - -	10	2	207	0
Massive grey sandstone with occasional prominent coarser - - - - -	30	3	237	3
Massive grey sandstone with specks of iron pyrites - - - - -	0	4	238	0
Massive coarse grained sandstone; occasional coarse bands with waly fragments - - - - -	32	0	270	0
SHALE { Fine black micaceous shale and clay sandstone - - - - -	4	0	274	0
4 ft.				

(R12267) W.S. 137194-0014 5000 9.27 Gp. 160 U.A.

JOHN THOM LTD.

CONTINUATION

British Geological Survey

Journal of Borehole put down for

British Geological Survey

The Lancashire Tanning Co., at Littleborough.

British Geological Survey

Ft.	ins.		Ft.	ins.	
	9	Surface		9	
4	3	Sandy clay.	5	0	
1	6	Sand.	6	6	
5	0	Gravel and big boulders.	11	6	
12	0	Sand and gravel.	23	6	
10	0	Sandy clay.	33	6	
8	6	Sand and gravel.	42	0	
12	0	Clay and stones.	54	0	
2	0	Sand.	56	0	
10	0	Clay and stones with big boulders.	66	0	
9	0	Gravel.	75	0	
12	0	Loamy sand, beds of gravel.	87	0	
2	0	Gravel.	89	0	
15	0	Loamy sand.	104	0	
20	0	Dark shale.	124	0	
28	6	Strong sandy shale.	152	6	
4	6	Milnrow, or Trough Edge S/stone.	157	0	
5	0	Coarse grey sandstone.	162	0	
6	0	Soft sandstone, water overflowing.	168	0	
28	0	Hard grey sandstone.	196	0	
	10	Sandy shale. } Broken.	196	10	
10	2	Grey sandstone.	207	0	
30	3	Hard grey rock, broken.	237	3	
	9	Broken grey rock, specks of } Pyrites.	238	0	
32	0	Broken grey rock.	270	0	
4	0	Broken dark shale.	274	0	

British Geological Survey

British Geological Survey

British Geological Survey

TOTAL DEPTH 274 ft.

British Geological Survey

British Geological Survey

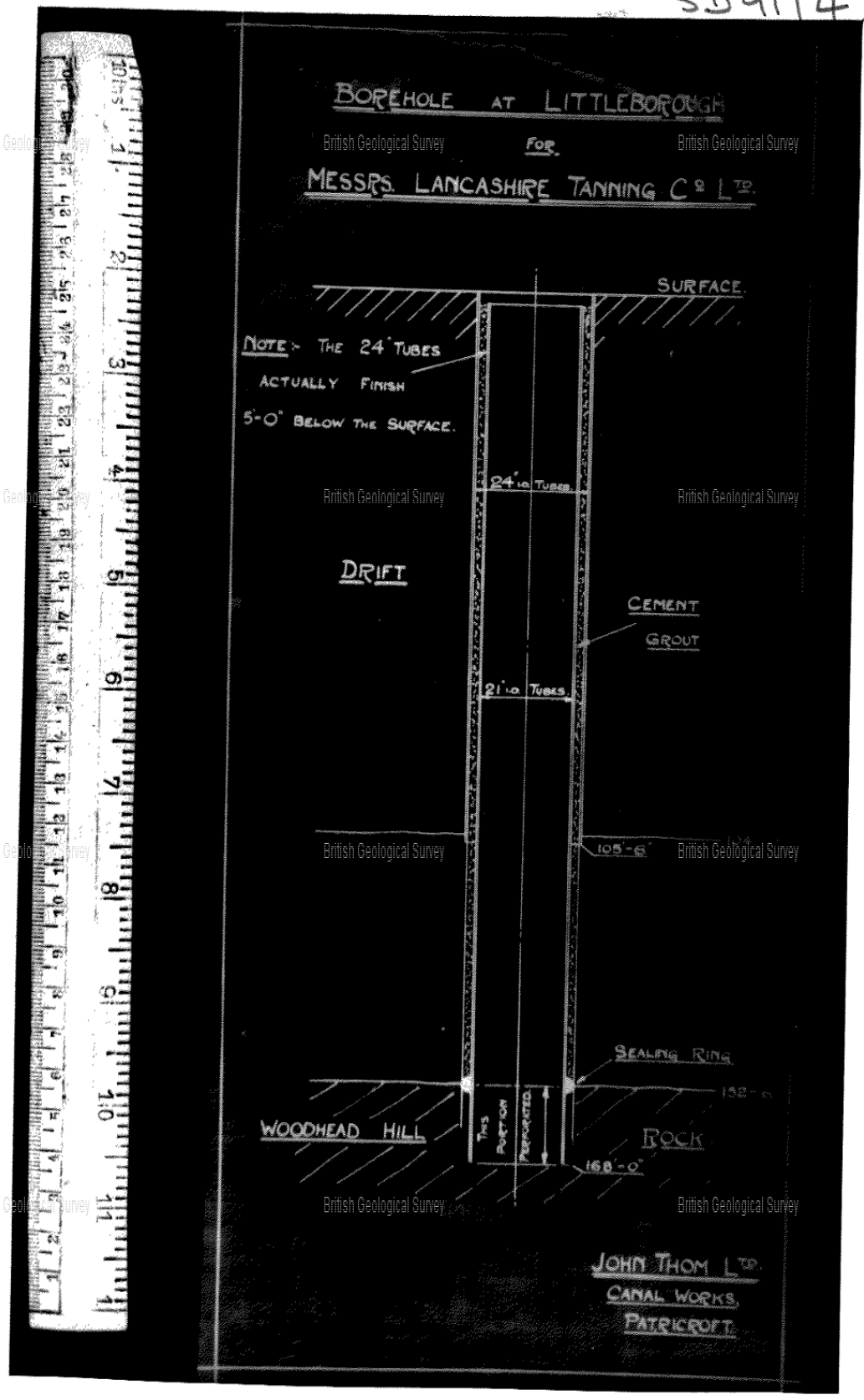
British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

SD 911/4



SD 91/4

10/5

CONTRACTORS TO H.M. GOVERNMENT, THE WAR OFFICE, AND TO THE CROWN AGENTS FOR THE COLONIES

Telegraphic Address
"THOM PATRICROFT"

Telephone
2251-2-3 ECCLES.

INCORPORATING
WILLIAM MATTHEWS & CO.

FACTORY
JOHN THOM PATRICROFT
MANUFACTURING ENGINEERS



June 9th. 1936.

D.A. Wray Esqr.
1, Crescent Road,
HALE, Cheshire.

Dear Sir,

re Littleborough.

We have received a report from our foreman stating that he is now in the rock. I will ring you up in the morning about 8-45 a.m., and if you will be good enough to come out to Littleborough, we will send a car to pick you up at the Station in Manchester.

Yours faithfully,

JOHN THOM LTD.

G. White

GW/TM

British Geological Survey

British Geological Survey

British Geological Survey

CONTRACTORS TO H.M. GOVERNMENT. THE WAR OFFICE. AND TO THE CROWN AGENTS FOR THE COLONIES.

Telegraphic Address:
"THOM. PATRICROFT"

INCORPORATING
WILLIAM MATTHEWS & CO.

DIRECTORS
J. H. THOM, A.I.M.E.E. F.G.S.
(MANAGING DIRECTOR)
M. D. B. THOM.



Telephone
2261-2-3 ECCLES.

November 13th. 1936.

Dr. Wray,
Geological Survey Office,
270, Oxford Rd,
MANCHESTER.13.

Dear Sir,

re Lancashire Tanning Co. Littleboro'

As promised by our Representative, Mr. White, we have pleasure in attaching hereto journal of the Borehole recently put down by us at the above site.

Yours faithfully,

JOHN THOM LD.

A handwritten signature, likely of a representative of John Thom Ltd., is written over the typed name.

British Geological Survey

British Geological Survey

British Geological Survey

ENC.

SD 91/4

76/785

British Geological Survey Trial boring at Stables Brow, Littleborough.
 Messrs. J. Thom. Artesian Well Engineers, Paternoster, Manchester.

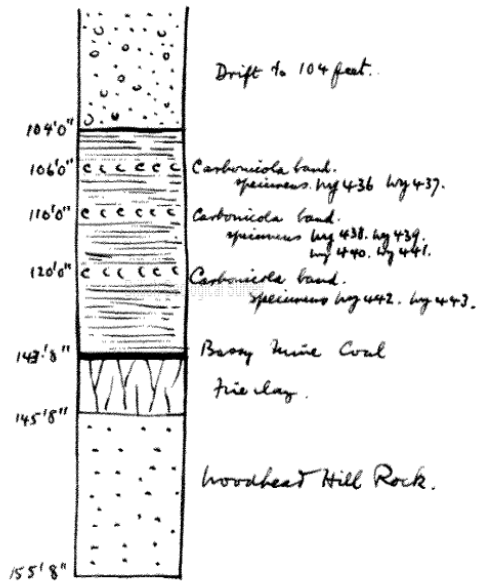
LITTLEBOROUGH

Surface	104' 0"
14' 6" Shale.	118' 6"
15' 0" Night shift.	133' 6"
7' 11" Shale.	141' 5"
3" Coaly shale.	141' 8"
2' 0" Shale.	143' 8"
2' 0" Sandy fireclay.	145' 8"
1' 8" Shaley sandstone.	147' 4"
1' 0" Sandy shale.	148' 4"
7' 4" Sandstone.	155' 8"

The above boring was a trial one made previously to the main boring given on page 2. To test the thickness of the drift. Cores of the shale between 110 feet & 120 feet yielded specimens of Carbonifera which were collected. My reading of the section is given on next sheet:—

(D.A. May).

SD91/4
76/58



DRIFT. 104 ft.

SHALE. 37 ft. 5 in.

COAL &
COALY SHALE 2 ft. 3 in.
FIRECLAY 2 ft.

WOODHEAD HILL
ROCK 10 ft.

D.A. May.
July 1936.

CENTRAL WATER PLANNING UNIT WELL RECORD		I.G.S. REF. NO. SD 91/94
I. WELL IDENTITY		N.A. LICENCE NO. 25/69/2/184
NATIONAL GRID REFERENCE 9261 1596		
Well at Lancaster Florana Ltd.	I.G.S. REF. NO.	
Town	RIVER AUTHORITY	
County	HYDROMETRIC AREA	
Owner of well	SUD-CATCHMENT	
Well made by	Date of sinking	
Information from NWWA	Date received 11.1.1980	
ADDITIONAL NOTES:		
App. No. 360 A Cancelled.		

6.3 APPENDIX C: ENVIRNOMENT AGENCY FLOOD MAP

Flood map for planning

Your reference
LowerStarring

Location (easting/northing)
392418/416555

Created
29 Mar 2023 10:53

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following**:

- bigger than 1 hectare (ha)
- in an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

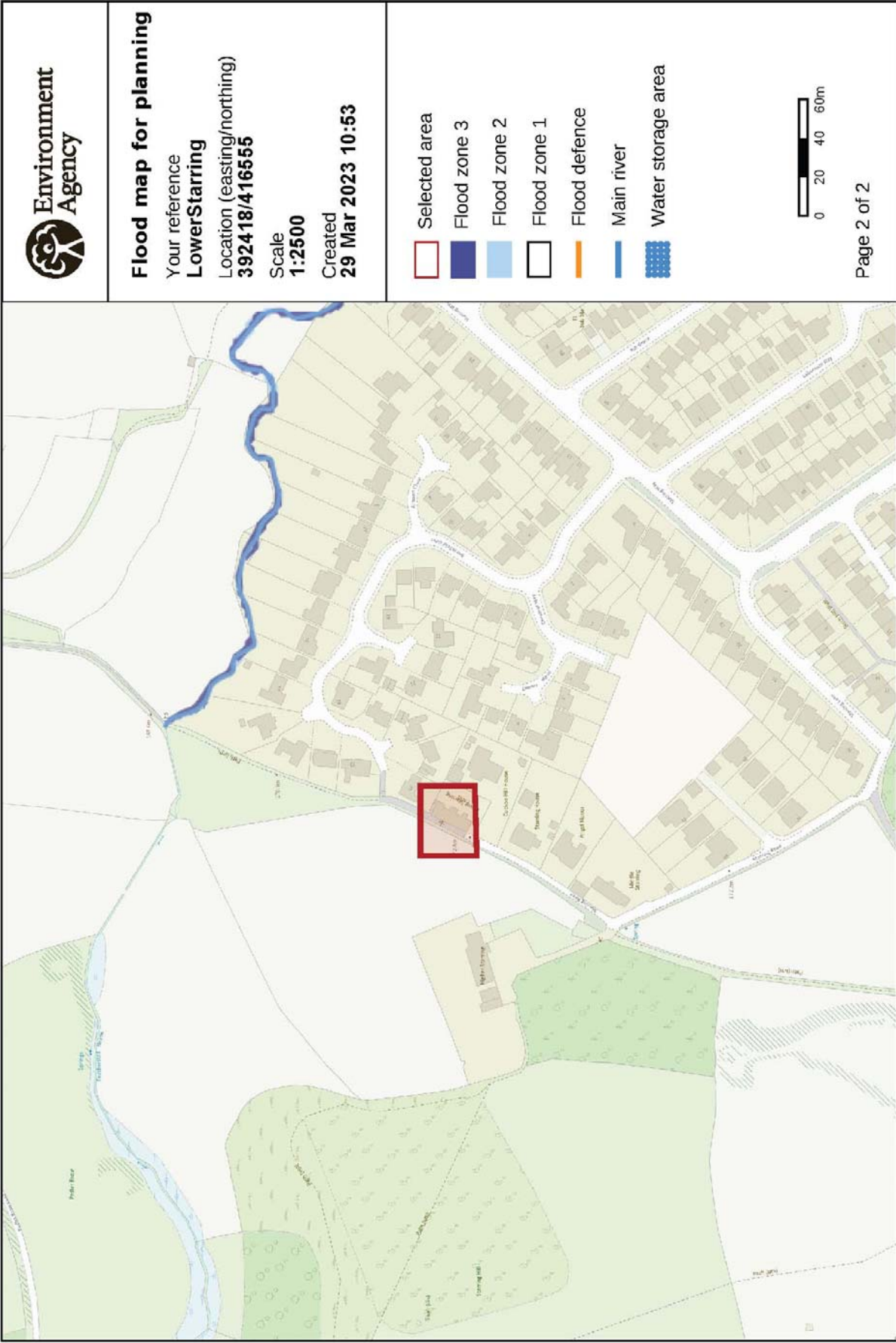
Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

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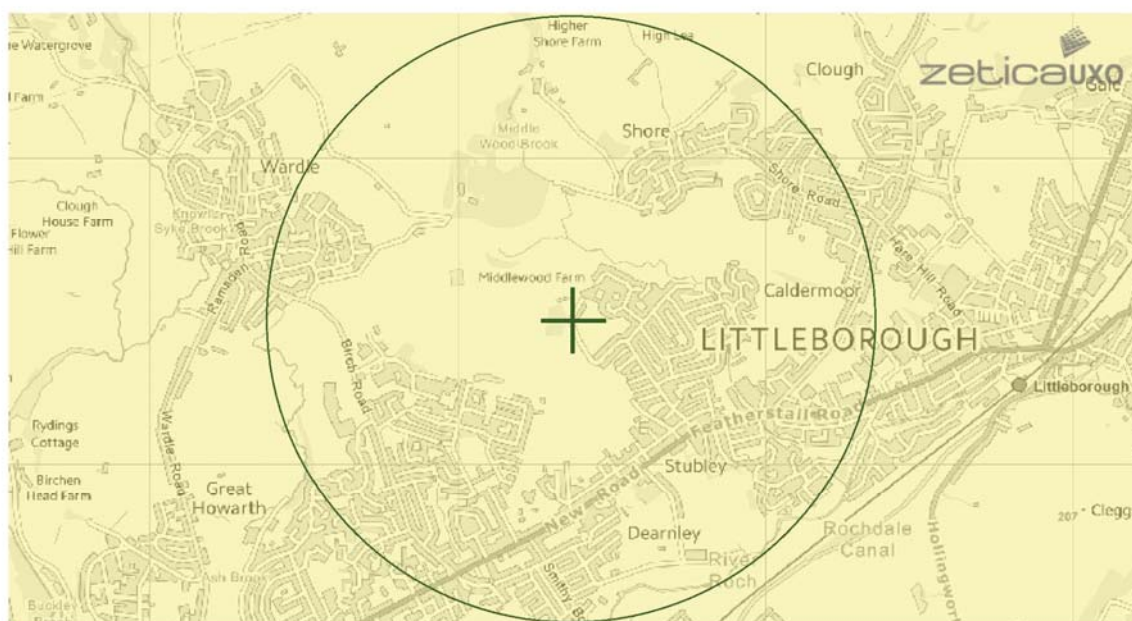
6.4 APPENDIX D: UNEXPLODED BOMB RISK MAP

UNEXPLODED BOMB RISK MAP



SITE LOCATION

Location: OL15 8HN,
Map Centre: 392382,416474



LEGEND

- **High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- **Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- **Low:** Areas indicated as having 15 bombs per 1000acre or less.

- | | | |
|------------------|----------------------|--------------------------|
| military | industry | UXO find |
| transport | dock | Luftwaffe targets |
| 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/>)

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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'.